

Tilburg University

DFID'S Manufacturing Portfolio Review

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Publication date:
2019

Document Version
Publisher's PDF, also known as Version of record

[Link to publication in Tilburg University Research Portal](#)

Citation for published version (APA):
Voeten, J., Smith, B., & Ibrahim, N. (2019). *DFID'S Manufacturing Portfolio Review: Other donors' approaches to manufacturing*. IMC Worldwide.

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Department
for International
Development



DFID'S MANUFACTURING PORTFOLIO REVIEW



OTHER DONORS' APPROACHES TO MANUFACTURING (ACTIVITY B)

25 JUNE 2019

EXPERT ADVISORY CALLDOWN SERVICE, LOT C



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This report is developed by IMC Worldwide consultants (<http://www.imcworldwide.com>) Jaap Voeten (Lead Consultant), Becca Smith (Research and Analysis Advisor) and Nada Ibrahim (Research and Analysis Support). Technical Inputs were provided by the expert consultancy company Economic Growth and Transformation (EGAT/<https://egat.co/>).

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ABBREVIATIONS

AICS	Agenzia Italiana per la Cooperazione allo Sviluppo
AFD	Agence Française de Développement
AGOA	African Growth and Opportunity Act
ANDE	Aspen Network of Development Entrepreneurs
ANOR	Cameroon standardization body
ASEAN	Association of Southeast Asian nations
BEAM	Building Effective and Accessible Markets Exchange
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BHOS	Dutch Foreign Trade and Development Cooperation policy
BMWi	German Federal Ministry for Economic Affairs and Energy
BMZ	German Federal Ministry for Economic Cooperation and Development
BSOs	Business support organisations
BSP	business service providers
CBI	Centre for the Promotion of Imports from Developing Countries
CO2	Carbon Dioxide
CP	Cleaner Production
CSR	Corporate Social Responsibility
CWG	Sino-German Company Working Group
DCA	Development Credit Authority
DCED	Donor Committee for Enterprise Development
DCED	Donor Committee for Enterprise Development
develoPPP	Develop Partnerships with the Private Sector Programme
DFID	Department for International Development
DGBEB	Directorate-General for Foreign Economic Relations
DGIS	Dutch Directorate-General for International Cooperation
DRIVE	Development Related Infrastructure Investment Vehicle
DSG	Decision Support Guidance manual
DTRT	Do The Right Thing Apparel Limited
DVET	Directorate of Vocational Education and Training
E&S	Environmental and Social standards
EAC	East African Community
EIB	European Investment Bank
EID	Eco Industrial Development
EIPs	Eco-Industrial Parks
EKI	Ethiopia KAIZEN Institute
EQuIP	Enhancing the Quality of Industrial Policies
ETPs	Effluent treatment plants
EU	European Union
FDI	Foreign Direct Investment
FDOV	Facility for Sustainable Entrepreneurship and Food Security
FMO	Entrepreneurial Development Bank
FSDA	Financial Sector Deepening Africa
GAME	Ghana Apparel Manufacturing Expansion
GDA _s	Global Development Alliances
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoE	Government of Ethiopia
GTSF	Global Trade Supplier Finance programme
GVC	global value chains
IAPs	Integrated Agro-Industrial Parks
ICT	Information and Communications technology

IDF	Infrastructure Development Fund
IFC	International Finance Corporation
ILO	International Labour Organization
IMC	IMC Worldwide
ISID	inclusive and sustainable industrial development
ISID	inclusive and sustainable industrial development
IUMP	Industrial Upgrading and Modernization Programme
JICA	Japanese International Cooperation Agency
KSH	Kenyan Shilling
KTDA	Kenya Tea Development Agency Ltd.
LED	Lebanon Enterprise Development
LISEC	Leather Initiative for Sustainable Employment Creation
KfW	Kreditanstalt für Wiederaufbau
M&E	Monitoring and Evaluation
MIIT	Chinese Ministry of Industry and Information Technology
MLC	Modjo Leather City
MoEFCC	Ministry of Environment, Forest and Climate Change
MOs	multilateral organisations
MoU	Memorandum of Understanding
ODA	Overseas Development Assistance
OECD	Organisation for Economic Co-operation and Development
ORIO	Dutch Infrastructure Development Facility
PaCT	Partnership for Cleaner Textile Programme
PCP	Programme for country partnership
PIDG	Private Infrastructure Development Group
PSD	Private Sector Development
PUM	Netherlands Senior Experts' programme
PV	Solar photovoltaic
R&D	Research and Development
SDGs	Sustainable Development Goals
SECO	Swiss State Secretariat for Economic Affairs
SEIP	Sustainable and environment-friendly industrial production'
SEZs	Special Economic Zones
SHGs	Self-help groups
SIAs	Sustainable Industrial Areas
SIYB	Start and Improve Your Business programmes
SMEs	Small and medium enterprises
SPS	Sanitary and phyto-sanitary measures
SPX	Subcontracting and Partnership Exchange
SST	Supervisory Skills Training
TA	Technical Assistance
TC	Technical Cooperation (UNIDO)
TBT	Technical barriers to trade
TTBC	Textile Technology Business Center
TVET	Vocational Education and Training
US	United States
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
USD	United States Dollar
WB	World Bank
WTO	World Trade Organisation

EXECUTIVE SUMMARY

DFID is reviewing other donors' manufacturing activities to inform its own approach

In line with the current thinking on economic development and global structural change, DFID's policy acknowledges the increasing importance of promoting manufacturing in developing countries in its economic development strategy. In the framework of the DFID manufacturing programme 'Invest Africa' (Aries code: 205226), IMC Worldwide undertook a review of DFID's global manufacturing support portfolio. The study includes an analysis of manufacturing support approaches of other donors and multilateral organisations (MOs) with a view to providing ideas and context for DFID to formulate future manufacturing support programmes.

This report presents the analysis of manufacturing programmes of seven donors and multilateral organisations (MOs) including the United States Agency for International Development (USAID), the Japanese International Cooperation Agency (JICA), the International Labour Organization (ILO), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the United Nations Industrial Development Organization (UNIDO), the International Finance Corporation (IFC)/World Bank and the Dutch Directorate-General for International Cooperation (DGIS).

Other donors pursue a range of approaches, usually without an overarching manufacturing strategy

Overall, the donors and MOs work in a broad range of areas. Manufacturing is often an implicit goal in their strategies in terms of an overall programme focus, targets or defined support approaches. In most cases, donors and MOs implement fragmented activities supporting manufacturing within broader generic private sector and agriculture development programmes.

At the same time, the promotion of the manufacturing sector has become more explicit and prominent in recent years. The donors and MOs have introduced original approaches towards manufacturing and are generating lessons learned that present relevant suggestions and ideas for DFID's manufacturing strategy. The analysis of the donor and MO programmes in the report reveals that while donors largely lack overarching manufacturing strategies, each donor employs a variety of instruments to foster manufacturing with different areas of emphasis:

- USAID - does not explicitly focus on manufacturing in its overarching strategy, but many of its programmes have elements that support the sector. USAID emphasises private sector support which facilitates trade by developing countries with the US, including by supporting the capability of small and medium enterprises (SMEs) to export manufactured goods to it under the African Growth and Opportunity Act (AGOA).
- JICA - is one of the donors that is most explicitly involved in manufacturing. JICA focuses on raising productivity by improving the management and (quality) capability of firms via Japanese business concepts such as *kaizen* (continuous improvement). It also supports manufacturing through trade and investment promotion programmes. It has a particular focus on SMEs.
- GIZ - does not have a specific focus on manufacturing within its overarching strategy but implements a range of manufacturing support services, such as through support for industrial policy development. It emphasises support for environmentally-friendly and socially sustainable industrial practices.
- DGIS (Dutch) - does not have an explicit manufacturing strategy, but supports the sector by encouraging bilateral trade opportunities, for example through a Dutch import promotion facility, and by raising firm's technical capabilities.
- IFC - has an explicit manufacturing strategy which identifies the specific contribution different parts of the World Bank Group can play with different instruments (firm level capital and assistance, sector level assistance, government support) in supporting industrialisation. It uses an approach which differentiates between countries' manufacturing needs and opportunities at different stages of their development.

- UNIDO - has a core mandate to promote inclusive and sustainable industrial development. Its approach uses a range of interventions which aim to integrate its industrial policy advisory, normative and convening services in its technical cooperation programmes, to support its Member States in reaching higher levels of productivity through value addition in manufacturing industries and related services. This includes, amongst other things, building the industrial and entrepreneurial capacities at institutional and firm level, facilitating technology transfer and improving the investment climate focused on manufacturing.
- ILO - stresses ‘decent work’ and the importance of compliance with labour standards in manufacturing programmes, the promotion of social security systems and labour protection. Such programmes are carried out via direct support to enterprises and via social dialogue among government, employers, trade union, labour unions and other partners.

Table 1 enables the comparison of the variety of manufacturing promotion strategies of the seven donors, MOs and DFID. A number of relevant and novel approaches stand out and could be of interest for DFID as it shapes its future manufacturing portfolio.

There are some types of programmes not focused on by DFID which other donors emphasise

- Strengthening domestic firms’ productivity – JICA’s Kaizen production management is a multi-country approach to supporting productivity improvements, particularly among domestic manufacturing SMEs. Such approaches may be helpful in countries or sectors where FDI is less likely to be attracted or to build capacity of domestic firms to link into the value chains of FDI
- Supporting technological upgrading – Responding to developing countries requirements to adapt to technological change in manufacturing, GIZ manages technology demonstration labs where firms with limited technical resources can test new production techniques, which promotes innovation. DGIS facilitates partnerships between retired Dutch engineering professionals and developing-country firms to support productivity and technological improvements.
- Combining finance and technical assistance - IFC provides capital investment to firms combined with technical assistance at the firm and sector level (see Kenyan tea case study) to address multiple constraints together. The separation of UK development finance (primarily deployed by CDC) and technical assistance (principally delivered via DFID) makes this coordinated approach more difficult.
- Finance facilities - IFC has established a trade finance facility providing short-term, post-shipment capital to suppliers in emerging markets, immediately after the buyer agrees to pay. It has a strong focus on supporting apparel and footwear suppliers.
- Industrial policy support– activist industrial policy has gained renewed focus on the agenda of most donors and MOs. A UNIDO and GIZ partnership supports industrial policy making by providing governments with tools and data for subsector selection, prioritization and policy objective decision making.
- Chinese engagement - recognising that rising Chinese wages and de-industrialization present a potential opportunity for low-income countries, GIZ has a manufacturing cooperation initiative with China which provides a platform for dialogue on the future of the manufacturing sector in Africa and Asia.

In areas DFID is increasingly focused on there are other programmes offering learning opportunities

- Transaction facilitation – USAID’s East African “Trade and Investment Hub” undertakes transaction facilitation work which is similar to that undertaken in DFID’s Invest Africa. As a relatively new approach, DFID can learn from this more mature programme.
- Encourage trade links to the donor economy – USAID’s Trade and Investment Hub also provides generalised support for exports to US (e.g. trade missions and information about AGOA). This has read-across to DFID

initiatives aimed at strengthening UK business relations. Likewise, the Dutch import promotion facility provides an existing template for UK activities in this area.

- Responsible manufacturing – The ILO/IFC Better Works programme, as well as ILO’s broader set of activities, illustrate a range of approaches to promoting responsible manufacturing. Better Works, for example, includes research which demonstrates the significant productivity benefits of treating workers well. UNIDO promotes energy and resource efficiency, for example through the Global Cleantech Innovation Program.

Some donors’ manufacturing strategies, both explicit and implicit, suggest alternative possible approaches

- Differentiation based on development stage – IFC distinguishes between countries based on their level of industrial development and the approach that flows from that. This ranges from lower levels of development, e.g. Myanmar, Rwanda, where IFC focuses on “laying the foundations”, to those which are further progressed (e.g. Bangladesh, Ghana) where IFC focuses on “expanding and diversifying the manufacturing base” to those which are one step further advanced (e.g. Kenya), where it “supports more complex manufacturing”. It combines this with a distinction between the firm, sector and economy wide level interventions appropriate at each stage.
- Manufacturing sub-sector focus – inherent in the industrial policy approach is the prioritisation of manufacturing subsectors and related services. UNIDO in particular implements programmes with a strong subsector focus and which take a holistic approach where an integrated set of support tackles different binding constraints. Only a small number of programmes in DFID’s current manufacturing portfolio apply a subsector focus.
- Green growth focus - Donors and MOs (especially GIZ, UNIDO and IFC) increasingly focus on addressing the harmful environmental impacts of manufacturing, for example by supporting clean manufacturing technology and innovation, greening of SEZs and the promotion of the circular economy.
- Focus support in areas of domestic strength – JICA’s Kaizen programme draws on the Japanese strength in lean manufacturing, while DGIS’s use of Dutch engineers to provide development support reflects Dutch strengths in agro-processing. The underlying idea is to support developing countries with knowledge and technology in areas where these donors have a particular strength.

Key manufacturing-focused multilaterals could offer opportunities for future partnerships as part of a DFID scale up in manufacturing

- ILO – ILO’s work (combined with IFC under the “Better Works” initiative) to improve outcomes for manufacturing workers involves a range of measures including factory level support, global buyer engagement, and supporting Government/firm/worker dialogue. Cooperation with the ILO/IFC would offer an opportunity for increased engagement by DFID on the responsible manufacturing agenda, building on existing partnerships on Better Works in Bangladesh and Ethiopia.
- UNIDO – as the leading MO with a specific industrial development, UNIDO is a natural counterpart to consider collaborating with. Opportunities could include work on strengthening the capacities and creating an enabling environment for industrial development, where UNIDO is a politically and economically neutral actor, or work to strengthen sub-sectors in specific countries.
- IFC – as the largest private-sector focused development organisation, and one with deep manufacturing expertise, the IFC could be a natural partner in industrialisation. Its ability to combine capital investment with sector wide technical assistance could provide opportunities for specific targeted cooperation.

The analysis suggests some further implications concerning the manufacturing agenda that DFID should push in future partnerships involving DFID funding. MOs involved in manufacturing, including regional development banks such as the African Development Bank and Asian Development Bank, should develop an explicit

manufacturing strategy (separate from private sector development) complemented with quantifiable targets. These strategies should typically be supported by sustained financial, technical assistance, and policy advice from MOs and their results should be regularly monitored. Where such strategies are deemed not suitable, reasons must be given and alternative drivers for job creation and economic growth must be proposed.

Conclusion

Other donors' and MOs' activities provide a range of programme models, strategic approaches and cooperation opportunities. DFID should consider its own strategy objectives and relative strengths when deciding what lessons to draw and collaborations to pursue. These considerations will be addressed in a final report to be produced as part of the portfolio review contract. There is a notable gap in overall donor coordination on manufacturing which DFID may wish to address.

Table 1: Manufacturing support approaches ■ : Substantial support activities ■ : Less substantial support activities ■ : No manufacturing(-related) support

	Provision of direct financial and non-financial assistance to the firms			Improvement of the external business and institutional context of firms.								
		Capital accumulation for manufacturing, not including smallholders and farmers ¹		Internal capabilities of enterprises		Intermediary business support organisations		Higher-level policy and regulatory institutional framework		Linkages		Infrastructure and energy
USAID		Mobilises private financing (FDI) through guarantees		Education and training of entrepreneurs and workers		The promotion of business and export services		Generic legal and regulatory framework for the private sector		Promoting two-way trade, markets for US goods and public-private partnerships.		Roads, bridges, water supply, energy grids. Some renewable energy projects.
JICA		n.a		Strengthening management and production quality capabilities		Trade and export promotion associations and BDS including private consultants		Industrial policies and streamlining business regulatory framework		Business matching providing information about foreign markets.		Special economic zones and industrial parks
GIZ		n.a		Awareness raising about green economic development and industry 4.0		n.a.		Industrial policy and high-level economic policy advice for economic growth		Cooperation with German business. Global value chains of agricultural products		Greening of industrial parks and sustainable industrial areas, renewable energy
DGIS		Development-related investment in trade with developing countries		n.a.		n.a.		Promotion of good business climate, legislation and regulatory framework		Various mechanisms to link Dutch and overseas partners in Dutch top sectors		Involved in multi-donor finance for infrastructure development
IFC/WB		Finance/investment programmes for-profit projects blended with concessional funds		n.a.		n.a.		Verification of higher-level policy and regulatory framework		Most projects targeted at Agribusiness Value Chains		Finance to private sector building transport infrastr., electricity and SEZs
UNIDO		Investment and Technology Promotion Offices (ITPOs)		Management skills and technology (cleaner production), trade norms and standards		Integrated approach includes business development services and trade associations		Industrial integrated policy framework focusing on potential high-growth sectors		Agricultural/manuf. global value chains, as well as enterprise clustering		Infrastructure for imports and exports. Energy infrastructure.
ILO		n.a.		Technology, labour rights, safety labour conditions/compliance		Social dialogue with employers' and trade associations on labour rights and safety		Industrial policy and enforcement mechanisms for labour standards		Linking local manufacturing enterprises and global value chains		n.a.
DFID		DFID incorporates a finance component in more than half of its programmes.		Provision of tailored TA to promote technology, quality standards of manufacturing		n.a.		Improving the generic business climate, however, not incl. industrial policies.		Mostly concerns the agricultural sector value chains. Only few UK collaborations		SEZs, roads and energy for broader economic development.

¹ The analysis does not include bilateral development finance institutions (DFIs). Analysis of DFIs' approaches to manufacturing is being undertaken by CDC.

INTRODUCTION

In line with the current thinking on economic development and structural change, DFID policy acknowledges an increasing importance of promoting the manufacturing sector² in developing countries within the framework of the Economic Development Strategy 2017. DFID assumes a broad understanding of manufacturing promotion programmes including manufacturing-related programmes (this includes agro-processing but not agribusiness), which indirectly target manufacturing or that are very significantly related to manufacturing.

DFID aims to develop and implement an effective and coherent portfolio of manufacturing support programmes. The subsequent overall objective of DFID's efforts to promote manufacturing is twofold:

- To increase the importance of the manufacturing sector in the overall economies of countries in which DFID has a presence, raising the productivity of manufacturing and the share that manufacturing contributes to GDP and thus supporting structural transformation. This equally includes raising the share of employment in the manufacturing sector and the share of manufactured products as exports, amongst other outcomes.
- To assure that an expanding manufacturing sector has positive impacts for society with regard to DFID's broader inclusive development objectives, including: poverty alleviation, job creation, labour rights, gender, equality, clean production, etc.

Understanding how other donors and stakeholders operate in this space is important, not only for DFID to implement a valuable portfolio that builds upon different approaches, but to maximise the value of the portfolio by potentially collaborating with others as well.

In the framework of the DFID programme 'Invest Africa' (Aries code: 205226), IMC Worldwide undertook a review of DFID's global manufacturing support portfolio. The first activity (A) concerned exploration of DFID's portfolio of manufacturing (related) programmes in tier 1 and 2 focus countries. The second activity (B) concerns the development of a summary of the approaches that seven other selected donors take towards manufacturing. This report presents the seven donors' strategies and approaches towards manufacturing, complemented by selected case studies that are relevant for DFID. It identifies the most notable trends and patterns, in terms of similarities and differences, and arrives at several subsequent recommendations and suggestions for DFID's future manufacturing portfolio.

The list of selected donors and multilateral organisations include donors that are engaged in manufacturing support programmes in various ways. IMC based the selection on suggestions provided in the ToR of the manufacturing review and on IMC's own insights and expertise. Rather than copying successful manufacturing support approaches, IMC believes that reviewing the diverse set of approaches will enable the identification of elements for an original approach that is complementary to other donors' programmes. The seven donors included in this review are:

1. United States Agency for International Development (USAID);
2. Japanese International Cooperation Agency (JICA);
3. International Labour Organization (ILO);
4. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ);

² Manufacturing is understood as the physical or chemical transformation of materials of components into new products, whether the work is performed by power-driven machines or by hand, whether it is done in a factory or in the worker's home, and whether the products are sold at wholesale or retail. Included are assembly of component parts of manufactured products and recycling of waste materials. See reference: <https://stats.oecd.org/glossary/detail.asp?ID=1586>.

5. United Nations Industrial Development Organization (UNIDO);
6. International Finance Corporation (IFC)/The World Bank;
7. Dutch Directorate-General for International Cooperation (DGIS).

In addition, a few pages on the World Bank approach to manufacturing are added as Annex 2.

All reviewed donors have both implicit and explicit manufacturing support activities in their programmes. Secondary data on effectiveness, efficiency and impact of manufacturing support programmes are not always available or presented in different formats thus difficult to compare. Moreover, these programmes are complex and many aspects are integrated, hindering quantitative attempts to assess causality in terms of success and failure. Instead, the enclosed case studies provide rich insights and lessons to support DFID ambitions to promote manufacturing.

Moreover, several more generic private sector development programmes contain societal elements that are essential for assuring that an expanding manufacturing sector has positive impacts for society, for example in terms of protecting the environment and supporting women entrepreneurs and youth. Although these programmes do not have an explicit manufacturing focus, several of these could be relevant and are included in the analysis.

IMC collected materials from website searches and conducted a series of interviews with representatives of the selected organisations. The materials and project cases were subsequently analysed and summarised in a 5-6 page chapter for each organisation, organized according to key headings of the various manufacturing support approaches. An overarching analysis of the trends in donor approaches follows the chapters on individual organisations. Contact details for interviewees from the donor organisations (name, title, location in organisation, email, phone number) are listed in Annex 1.

1. UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)

Promoting manufacturing is not an explicit goal of USAID but many of its programmes have elements that support manufacturing. USAID stresses mutually beneficial partnerships within the private sector, which is in line with the objectives of the African Growth and Opportunity Act (AGOA). The 'US Trade and Investment Hub' programme is an example of targeted investment facilitation, supporting adherence to intra-regional and international trade agreements and standards, deepening regional integration and increasing the competitiveness of value chains.

The primary objective of the United States' foreign assistance is to promote U.S. and international security and prosperity by bolstering economic and political stability and self-reliance in developing countries. Amongst others, USAID seeks to support the opening of markets for American commerce and expands and deepens partnerships with governments, businesses, universities and civil society accordingly. One underlying idea of USAID is that development has a critical role in preventing conflict and violent extremism and in reducing the sources of global political instability that can threaten U.S. national security. A stable, business-friendly environment in developing countries is expected to provide economic opportunities for U.S. companies and workers and to reduce irregular migration and violent extremism.

USAID works in a range of areas on development challenges including agriculture and food security, democracy, human rights and governance, economic growth and trade, education, environment and global climate change, gender equality and women's empowerment, global health, water and sanitation, and working in crises and conflict. USAID's fiscal year spending in 2017 was over \$19.3 billion, invested in over 140 countries.³ Within the area of economic growth and trade, boosting agricultural productivity is an explicit goal, while promoting manufacturing is less explicit.

Manufacturing (-related) support approach of USAID

The 'Industry' sector accounted for \$79 million of the 2017 spend (allocations to manufacturing support activities are not specified). As presented in Table 2, Industry projects categorised as 'World' (multi-country initiatives) accounted for over half of this spend, while the top individual countries were Lebanon, India, Afghanistan and Uganda and Mozambique.⁴ Projects under the categories of Trade Policy and Regulations received close to \$114 million in disbursements and Banking and Financial Projects received another \$94.5 million in 2017 although it is unclear what proportion of these funds were directed towards manufacturing support activities.⁵

USAID focuses on supporting broad-based economic growth that is essential to sustainable and long-term development. The range of programmes ultimately aim to create the opportunities that poor households need to raise their living standards, provide countries with the resources to expand access to basic services, and enable citizens to chart their own prosperous futures. Support for economic growth seeks to give people access to markets where they can sell their goods and services and play a productive role in their economies.

³ <https://results.usaid.gov/results/sector?fiscalYear=2017>

⁴ File name: USAID-DTR-fulldataset.xlsx, downloadable from:
<https://results.usaid.gov/results/country?fiscalYear=2017>

⁵ Data from the USAID Foreign Aid Explorer website shows over 460 'manufacturing' projects funded since 2001, although this includes projects funded by other agencies as well and it is not possible to determine the specific number of USAID projects, nor is the data linked to information on individual projects. Other USAID data is not searchable by 'manufacturing' as a sector. Between 2014-2017, the data shows 11 designated 'manufacturing' projects funded by US foreign assistance through any agency, which may or may not include USAID.

Table 2: Top destinations for USAID spending on ‘Industry’ projects in 2017

Geographic coverage	2017 Budget (USD)
World (multi-country)	\$43 million
Lebanon	\$5 million
India	\$3.6 million
Afghanistan	\$3.1 million
Uganda	\$2.2 million
Mozambique	\$2.2 million

Capital accumulation

USAID focuses on mobilizing new investors and private capital to underserved sectors, including the manufacturing sector, and geographies. USAID also encourages the adoption of financial instruments and strengthens capacity within financial intermediaries to meet the credit needs of enterprises. One of USAID’s innovative approaches to increase the flow of capital in developing countries is the Development Credit Authority (DCA), which helps unlock financing for companies. DCA guarantee mechanisms seek to address gaps in financing and support manufacturing subsectors as well as agricultural producers and agribusiness in developing countries. Case 1 below provides an example of a DCA project in the Ghanaian apparel manufacturing sector. Through DCA, more than 600 guarantees between financial institutions and USAID have made up to \$5.5 billion in private financing available for more than 350,000 entrepreneurs around the world.

USAID further supports economic growth in developing countries by supporting domestic private sector development, and helping countries attract and make good use of foreign direct investment (FDI), including from U.S companies. Other obstacles to economic growth in developing countries include lack of financing for domestic firms to expand, and unreliable and expensive energy; USAID programmes help countries tackle these challenges as well. USAID missions advise governments on how to increase private investment including FDI by reforming laws, regulations and procedures that were well intentioned but that have raised the cost of doing business or the costs of importing and exporting.

Lastly, USAID mobilizes commercial capital at scale to achieve development priorities by directly supporting transactions and partnering with private investors to increase viable investment opportunities and mitigate risk through USAID’s Office of Private Capital and Microenterprise.

Internal capabilities of enterprises

USAID identifies promising entrepreneurs and rapidly growing enterprises and helps them improve their operations through training, business networks and other support. This includes building financial literacy and business acumen, as well as facilitating access to markets, information and networks. Education programmes aim to motivate youth to be active in local economic development instead of opting for crime or migration. USAID works to improve workforce training and professional education to develop industry standards in the skills and competencies needed by private industry and manufacturing. This strengthens the ability of higher education institutions to develop a workforce that is responsive to private sector needs through the provision of relevant, high quality educational programmes that contribute to economic growth.

Intermediary business support organisations

USAID improves the effectiveness of business and export development services and helps aspiring businesses to become more productive and competitive. Business support includes increasing access to market information, business management and technical skills training. The three-year Lebanon Enterprise Development (LED)

project is one example of USAID's involvement in business support to enterprises, not exclusively to manufacturing but in a range of sectors including agriculture/agro-industry, manufacturing, healthcare, pharmaceutical, ICT/media, services, tourism/hospitality, trade and other industries. Launched in 2018, LED takes a buyer-led approach to how it delivers support and achieves impact. LED aims to help enterprises make deals with new and/or existing customers in final markets and to promote job creation.

As needed, LED helps enterprises identify, engage and/or organize its suppliers. Demand from the final market, expressed through orders for goods or services produced by clients, fuels enterprises' growth (increases sales) and can drive enterprises and their suppliers to hire more people. To help clients grow their sales, LED helps them to identify the problems that stand in the way of new and/or better orders and then provides customized assistance through Lebanese or international consultants, consulting firms, or other business service providers (BSP).

One interesting initiative that is related to manufacturing is the U.S. Global Development Lab, which was established in 2014 and serves as an innovation hub to test new ideas with other actors to harness innovative tools and approaches that accelerate development impact. USAID channels technical expertise of scientists and researchers to build local scientific capacity, empower people with tools for change and use the evidence from scientific research to drive new policies and programmes. On technology, the Lab supports access to innovative digital financial services and the internet, in part by strengthening enabling environments. It also increases the use of evidence, data and analytics for better decision-making. The Lab also increases the adoption of high-impact solutions and the effective use of innovation methods by the Agency.

Linkages

USAID's economic growth programmes help build new markets for the United States by expanding trade and supporting the emergence of middle-class consumers that can buy U.S. goods and services (stable economies are less vulnerable to crisis, terrorist activities and international crime). Since 2001, Global Development Alliances (GDAs) have been USAID's premier model for public-private partnerships, helping to improve the social and economic conditions in developing countries and deepen USAID's development impact. As the private sector plays an increasingly critical role in shaping sustainable economic and social development, USAID continues to engage corporations, local businesses, financial institutions, investment firms, private foundations and others as core partners in efforts to drive economic growth, reduce poverty and improve business outcomes in developing countries.

By working together to jointly identify, define and solve key business and development challenges, USAID and the private sector are building mutually beneficial partnerships that leverage their respective expertise, assets, technologies, networks and resources to achieve greater development impact. In many cases, these transformational partnerships take the form of GDAs that help to achieve USAID's development objectives and increase the sustainable impact of USAID's development investments.

In Bangladesh, USAID worked with a local company Golden Harvest through a GDA partnership to develop cold chain networks of refrigerated trucks, cold storage centres and collection units. USAID provided access to technical expertise in cold chain development as well as on-farm assistance to Golden Harvest's suppliers. Golden Harvest also benefited from positive associations with the USAID brand, as the agency's reputation and credibility helped to instil consumer confidence in the quality of food products, and from USAID's connections, which enabled the agency to link Golden Harvest with the Global Cold Chain Alliance.⁶

⁶ https://www.usaid.gov/sites/default/files/documents/15396/ccba-draft_edited.pdf

Higher-level policy and regulatory institutional framework

USAID acknowledges the importance of a stable legal and regulatory climate for manufacturing businesses to thrive and grow. USAID supports policies and regulations that foster private sector engagement by partner governments, and leads global and regional initiatives promoting private sector engagement. USAID works to promote more predictable, transparent and enabling business environments in developing countries that are conducive to trade competitiveness and accelerated investment.

USAID works closely with a network of private businesses, investment firms and trade associations, as well as with other development partners, to gather, collate and assess evidence for trade policy and regulatory reform. It then initiates dialogue with policy makers and regulators and also promotes trade facilitation under existing free trade agreement. USAID promotes transport and border/customs integration and supports the integration of developing countries into the World Trade Organization. Its work on policy and regulatory frameworks makes governments more efficient, enabling them to strengthen investments and provide better services for citizens.

Infrastructure

Improving infrastructure such as roads, bridges, water supply and electrical grids is critical to expanding the potential for a country's growth. USAID's programmes implicitly target assistance to partner countries to reform the energy sector in areas suffering from conflict and natural disasters, including in countries such as Afghanistan and Haiti, helping energy utilities to become self-sufficient without the ongoing need for government subsidies.

Through an innovative partnership, USAID is mobilizing private sector investment in renewable energy projects in sub-Saharan Africa, increasing access to electricity for businesses in off-grid areas that often rely on costly diesel, and driving adoption of solar technology.

Cases of manufacturing support programmes of USAID

Case 1: Ghana Apparel Manufacturing Expansion (GAME)⁷

The GAME programme of USAID provides investment and training to workers and staff in the apparel sector in Ghana with a view to expand their production capacity and fulfil large orders from their primary American client. Budget \$2 million (of the total project budget of \$4 million) is funded by USAID. Duration: August 2017 – ongoing.

GAME is launched under USAID's Global Development Alliance (GDA) in Ghana. It is a cooperative agreement between USAID and the apparel producing company 'Dignity/DTRT (Do The Right Thing)'. The programme provides training for 1,400 people and creates 1,200 new skilled apparel-making jobs. Around 80% of these jobs will be filled by women, many of whom lack job skills and come from low-income backgrounds. The funding \$4 million; \$2 million from USAID and \$2 million from a private bank, backed by an USAID's DCA guarantee.

The DTRT Group is West Africa's largest apparel manufacturer and exporter. The company is 51% owned by Dignity Industries (a wholly Ghanaian-owned company) and 49% by DTRT Apparel Limited (a Ghanaian-registered company with American ownership with offices in San Diego, California). The apparel, which range from shirts to outerwear, is sold by Seattle-based SanMar. The partnership helps the successful American clothing and accessory company support their U.S.-based distribution centers backed by American workers. This

⁷ <https://usaid-credit.exposure.co/ghana-supporting-a-large-apparel-exporter> and <https://www.usaid.gov/west-africa-regional/press-releases/more-1100-new-jobs-usaid-supports-dignity-dtrt>

expanded partnership will also add millions of dollars each year in new apparel exports from Ghana to the U.S., duty and quota free under the African Growth and Opportunity Act (AGOA).

In 2017, to improve access to financing, USAID provided DTRT Apparel with a Development Credit Authority (DCA) partial credit guarantee. With USAID sharing the risk of default, DTRT secured \$2.0 million in financing from Barak Structured Trade Finance Segregated Portfolio. This fund is focused solely on debt financing in sub-Saharan Africa and primarily provides short term trade finance for agricultural commodities. DTRT will be able to negotiate up to an additional \$2.8 million in debt financing with the DCA guarantee from Barak in the future or from another lender.

USAID's support is expected to allow DTRT Apparel and Dignity/DTRT to expand their production capacity and fulfil large new orders from their primary American client including for new and higher value-added products, allowing the two firms to generate an additional U\$20 million in annual sales to the U.S. under AGOA. With orders and financing in hand, DTRT Apparel also expects to offer permanent positions to all 1,400 graduates from the GAME.

Case 2: East Africa Trade and Investment Hub⁸

The USAID East Africa Trade and Investment Hub (the Hub) boosts trade and investment with - and within - East Africa. It is a regional mechanism for innovation that enables the private sector to increase trade, attract investment, create jobs and reduce food insecurity. Duration: September 2014 – August 2019. Budget: \$64 million USD.

The East Africa Trade and Investment Hub promotes two-way trade with the U.S. under AGOA, providing targeted investment facilitation, supporting adherence to intra-regional and international trade agreements and standards, deepening regional integration and increasing the competitiveness of value chains. The Hub's activities are organised within four following focus areas.

1) Attracting investment to East Africa. The Hub attracts, mobilizes and sustains new private-sector investment. The investment component works in four priority sectors: ICT, agribusiness, financial services, and cotton, textile and apparel, within the East African Community (EAC), Ethiopia, Mauritius and Madagascar. The Hub has a goal of facilitating \$100 million in investments and creating 10,000 jobs by 2019. The Hub offers neutral investment advisory services and market linkage support to reduce the risk, cost and deal time of transactions in the region.

2) Bolstering regional trade in staple foods for food security and stability. The Hub works to align regional policies and remove trade bottlenecks by partnering with governments, strategic private sector actors and institutions to harmonize regional staple food standards, support access to finance to large grain trade deals and build in-country knowledge of and compliance with food, plant and animal safety standards. The Hub also facilitates the adoption of innovative U.S. technologies

3) Promoting intra-regional and export trade, particularly through AGOA. Exports, especially value-added exports, raise profits and create jobs. To date, the Hub has facilitated exports to the U.S. under AGOA worth \$415.7 million, creating over 43,000 jobs. The Hub supports buyer-seller export linkages, buyer missions and business-to-business events for U.S. companies looking to source from and invest in East Africa. The Hub also provides firm-level technical assistance to East African businesses across five sectors – textiles/apparel, footwear, cut flowers, home décor/fashion accessories and specialty foods – to improve their export capacity

⁸ <https://www.eatradehub.org/>

and prepare them to meet U.S. buyers' demands. To position firms to take advantage of AGOA's duty-free access to the U.S. market, the Hub trains firms on AGOA benefits and sector-specific export requirements and supports governments to develop and implement national AGOA strategies.

4) Creating an enabling environment for trade and investment. The Hub works to promote a more predictable, transparent and enabling business environment in East Africa, conducive to trade competitiveness and accelerated investment. The Hub supports countries' compliance with intra-regional and international trade agreements and international standards. The Hub team works closely with a network of private businesses, investment firms and trade associations, as well as other development partners, to gather, collate and assess evidence for trade policy and regulatory reform. It then initiates dialogue with policy makers and regulators.

Mid-term evaluation May 2018

Among its accomplishments in early 2018 the Hub had created over 44,000 new jobs, contributed to 25 policy and regulatory reforms and facilitated over 3,700 export-seller linkages.⁹ A mid-term external evaluation of the Hub from May 2018 found that the project had achieved notable successes in areas such as policies and standards for staple foods, improved clearing points for cross-border movement of commodities and facilitating buyer linkages through hosting trips to East African Community (EAC) countries.¹⁰

While the Hub prioritizes sectors with high potential for female job creation, such as textiles and apparel, home décor, fashion accessories, horticulture and coffee, these jobs are usually at the unskilled and semi-skilled levels and at the lower end of the pay scale, reflecting the existing gender dynamics. On the other hand, harmonized and streamlined EAC trade policies supported by the Hub have significant benefit to women, as evidence suggests that women traders experience negative impacts from trade inefficiencies and that women-led firms prefer to export to neighbouring countries. One key issue from the evaluation was that the Hub was operating in a gender-insensitive manner that reflected existing gender inequalities.

Based on the findings of the mid-term evaluation, several recommendations may be of special relevance to DFID future manufacturing programmes:

- To maximize the likelihood of sustained results beyond the Hub's lifespan, the Hub should make a concerted effort to engage with other donors and programs supporting the Hub's partners and strategic areas of focus to identify areas where resources can be leveraged.
- As most output targets have been significantly over-achieved, the Hub should focus on depth of assistance to those already supported. Such assistance may include helping close deals through order fulfilment, cultivating long-term relationships with contacts made through trade shows and buyer linkages, and providing follow-up support to firms assisted with product development. All new activities should be anchored within a strategic initiative rather than implementing one-off activities.
- Quarterly and annual performance reporting should take a more nuanced approach to sex disaggregation to reflect ownership of businesses assisted through firm-level assistance, investment and capacity building within government and business support entities. This will provide valuable insight into exactly where and how resources are reaching men and women differently.

⁹https://d3n8a8pro7vhmx.cloudfront.net/eatradehub/pages/4082/attachments/original/1544179276/USAID_Hub_Factsheet_DEC_2018.pdf?1544179276

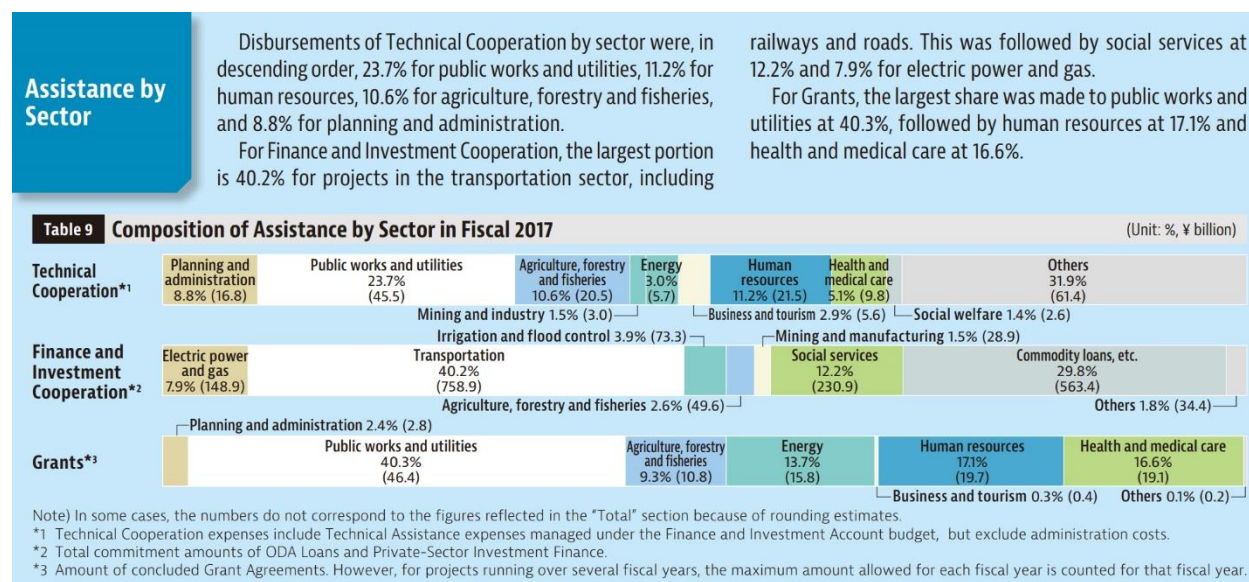
¹⁰ Six countries in the African Great Lakes region in eastern Africa: Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda https://pdf.usaid.gov/pdf_docs/PA00TFHF.pdf

2. JAPANESE INTERNATIONAL COOPERATION AGENCY (JICA)

JICA is one of the donors with a lot of programmes promoting the manufacturing sector in developing countries. It focuses on providing support for manufacturers to raise overall productivity by improving the management and (quality) capability of firms via Japanese business concepts such as kaizen (continuous improvement). Manufacturing is further supported via strengthening the competitiveness of SMEs and through trade and investment promotion programmes.

For the past decade, JICA has been actively involved in private sector development support activities, including manufacturing support programmes. Although ‘manufacturing’ is not explicitly listed under JICA’s thematic issues¹¹, it is an essential element in the many programmes on transportation, energy and mining, economic policy, private sector development and urban and regional development.

JICA supports manufacturing programmes in strengthening the industrial competitiveness of local companies, with a focus on SMEs, and on trade and investment promotion. The underlying idea is that manufacturing can benefit both enterprises in developing countries and in Japan. JICA fosters mutually beneficial relationships between companies and research institutions in Japan and the private sector in developing countries, for instance with Japanese companies with local production units. In terms of support approaches, JICA is assisting developing countries with (1) the formulation of industrial promotion policies coupled with institutional and operational development, (2) the promotion of investment and the development of special economic zones, and (3) capacity and competitiveness building and industrial human resources development. The assistance by sector is as follows:



(Source: JICA Annual report 2018)

JICA does not have a specially assigned ‘Manufacturing Department’ within its organisational structure. Most manufacturing related activities fall under the Industrial Development and Public Policy Department. This is reflected in the policy documents on SMEs and trade and investment.¹² Some £200 million is explicitly assigned

¹¹ https://www.jica.go.jp/english/our_work/thematic_issues/index.html

¹² Documents ‘JICA Thematic Guideline Small and Medium Enterprise (SME) Promotion (2013)’ and ‘JICA Thematic Guidelines Trade and Investment Promotion (2013)’. Contact person: Ms. Saki Ito, Private Sector Development Group.

to under mining and manufacturing under finance an investment cooperation. Manufacturing is implicitly targeted under transportation, public works, energy etc.

Manufacturing (-related) support approaches of JICA

Capital accumulation

JICA promotes the alignment of FDI with the promotion of local industries, in particular SMEs, in developing countries. JICA issues bonds in the capital market to fund projects in developing countries, typically for highway construction and water supply projects. JICA implements programmes for private sector finance for SMEs, although these programmes do not have a particular manufacturing support focus.

Internal capabilities of enterprises

According to JICA policy, an important aspect of developing the manufacturing sector in developing countries is the fostering of human resources for industry and supporting industries. In India for instance, where there has been a rapid increase in the entrance of Japanese companies into the market, JICA is providing assistance for training core management personnel in the manufacturing industry, sharing the essence of Japan's *monotsukuri*¹³ or manufacturing craft. In Mexico, where many Japanese automobile companies have set up local production, JICA supports consultancy missions of Japanese technicians and experts to assist automotive component manufacturers and other supporting industries in upgrading their operations.

The strengthening of manufacturing companies' capacities concerns the improvement of the quality and productivity of productive industries in line with international (export) standards. Specifically, JICA promotes the use of 'Kaizen' management methodologies for achieving quality and productivity improvement. Kaizen, or continuous improvement, refers to bottom-up activities aimed at enhancing the productivity of Japanese enterprises. It has become an internationally recognized concept and is one of the underlying management practices of Japan's manufacturing success. A Kaizen programme in Ethiopia presented below in Case 1 is an example of such manufacturing-related programmes.

Intermediary business support organisations

Although not exclusively aimed at promoting manufacturing, JICA supports intermediary business support organisations, such as trade promotion agencies, trade associations, private training institutions, export promotion organizations and chambers of commerce. With regard to development services for businesses, JICA has established local 'Japan Centers' that provide training on human resources and Japanese-style management and production and manufacturing management methods in 10 countries in Asia and Eastern Europe.¹⁴ JICA further supports public institutions in servicing local business to provide solid foreign market information and explanation of the requirements/standards for international competitiveness. The aim is to encourage local companies, including manufacturing companies, to actively approach international markets, identify and analyse potential demand and demonstrate their attractiveness appropriately and effectively to international markets.

Higher-level policy and regulatory institutional framework

JICA assists countries to develop higher-level industrial policies for improving the business environment, which it considers as critical for the promotion of the manufacturing sector. This includes the formulation and implementation of industrial, manufacturing and investment promotion policies, with the main aim to attract

¹³ *Monotsukuri* is translated as 'manufacturing' - making things with a skill that is distinctive. A key element is producing high quality products that meet the high expectations of Japanese consumers. *Monotsukuri* also often refers to innovation.

¹⁴ See https://www.jica.go.jp/english/our_work/types_of_assistance/tech/projects/j_center/index.html.

foreign capital to industrial sectors. Case 2 described below presents an example of an industrial policy programme in Vietnam.

Regarding the operational and daily regulatory institutional framework (business laws and institutions), JICA assists with the development and operational improvement of legislative and institutional infrastructure for business activities. This includes economic laws such as enterprise law and competition law, intellectual property systems, standards and conformity assessment systems (standardization, certification and measurement standards), tax administration and financial systems. JICA supports trade facilitation by simplifying border procedures and developing cross-border transportation networks. The launch of ‘National Single Window Websites’ and one-stop services are provided to attract investment.¹⁵

Linkages

JICA enhances marketing capacity and promotes business matching by providing information on foreign markets and overseas buyers and supporting the expansion of sales channels through exhibitions, and by receiving requests for consultation on exports through trade promotion institutions. This is linked to JICA’s promotion of the manufacturing industry through value chain formation.

Infrastructure and energy

JICA has been engaged in the development of special economic zones (SEZs) and industrial parks in developing countries. One example is the Thilawa SEZ in Myanmar covering 2,400 hectares approximately 23 km southeast of downtown Yangon. JICA has - through technical cooperation, Japanese ODA loans and grant aid – supported infrastructure development such as electricity, water, telecom, roads, bridges and ports in the surrounding area. JICA has also provided technical assistance to the Thilawa SEZ Management Committee and the One Stop Service Center for efficient SEZ operation, and to the Government of Myanmar for appropriate land acquisition and resettlement and income restoration program that meets international standards.

JICA has supported a stronger legal framework related to SEZ development, including the formulation of the revised Special Economic Zone Law and accompanying regulations. JICA is committed to continue making contributions to socioeconomic development in Myanmar through comprehensive measures, such as the Thilawa SEZ initiative, to build up the investment climate and create employment opportunities. Candidate manufacturing industries are chemicals, basic metals, machinery/equipment, food and beverages, coke and petroleum products, electronic parts, automotive and automotive parts and natural rubber and plastic products.

JICA’s future in Asia and Africa

An increasing number of Japanese companies are implementing or examining business expansion in the South Asian region including in India and Bangladesh. For this purpose, JICA considers it important to dispatch trade/investment advisors, provide support to improve procedures related to import, export and investment and continue to examine the feasibility of Japanese business expansion. Japanese companies are expanding business operations in Africa too. JICA will continue to provide support for the improvement of the business environment where Japanese manufacturing companies can smoothly and actively make an investment as well as strengthen the investment promotion function, with a focus on countries with investment potential. Against this context, JICA also considers the strengthening of the production quality of local supplying companies.

¹⁵ See <https://www.jica.go.jp/myanmar/english/office/topics/press140425.html>

JICA assumes that Industry 4.0¹⁶ will have an impact on manufacturing as it accelerates the combination of information and communication technology, and artificial intelligence. Recently, there has been growing interest in such technological innovations in the manufacturing sector in developing countries.

Cases of manufacturing support programmes of JICA

Case 1: Capacity Development for Kaizen Implementation for Quality and Productivity Improvement¹⁷

JICA funds the Ethiopia Kaizen Institute (EKI) in Ethiopia, which promotes innovative ways of management to improve quality and productivity in targeted manufacturing industries in Ethiopia, leading to an enhancement of industrial competitiveness. Implementation budget: JPY 670 million (£4.6 million). Duration: June 2015 - June 2020

As the result of initial JICA studies in Ethiopia in 2009, exploring the potential of promoting the Japanese Kaizen management practice in manufacturing, a Kaizen Unit was established within the Ethiopian Ministry of Industry. The studies showed the potential of Kaizen in bringing about improved quality and productivity in Ethiopian manufacturing industries and behavioural changes in workers. Later, the unit was formalised with JICA support into the Ethiopia Kaizen Institute (EKI) in 2011, as a permanent organization with 100 staff, to improve quality and productivity in targeted manufacturing industries in Ethiopia, leading to an enhancement of industrial competitiveness. Since then, the government of Ethiopia has highlighted Kaizen as one of the pillars for the improvement of quality, productivity and competitiveness of Ethiopian industries in the national plan for economic growth.

Today, JICA is supporting EKI through the implementation of the project ‘Capacity Development for Kaizen Implementation for Quality and Productivity Improvement.’ The direct project purpose is to develop a critical mass of Kaizen practitioners in both private and public sectors through the kaizen dissemination system led by EKI. The envisaged outputs focus on the development of EKI's management capacity in Kaizen through the accumulation and standardization of best practices. It is the idea that EKI becomes able to provide advanced level Kaizen training and consultancy services to private and public sectors. Moreover, a coordinated system is put in place whereby the quality of Kaizen training and consultancy services provided by EKI and other institutions is ensured and dissemination is promoted at the national level.

The inputs financed by JICA include the dispatching of experts including a chief advisor and institutional development advisors, quality and productivity development and system development. Furthermore, JICA financed the local training of the EKI's staff as well as practitioners and counterpart training in Japan/third countries. JICA also resourced office infrastructure and equipment.

The effectiveness of the project is best illustrated by an account of one participating Ethiopia Plastic manufacturer in Addis Ababa. This company boosted productivity significantly: "Thanks to Kaizen, our machines' availability time increased by more than 30 percent, our defects dropped, and our overall productivity rose by more than 20 percent. It's been about 30 years since the company was founded. Previously, sales were sluggish, the machines producing major products had a low utilization rate and the defect rate was high. Before

¹⁶ Industry 4.0 is a name given to the current trend of automation and data exchange in manufacturing technologies. It includes cyber-physical systems, the Internet of Things, cloud computing and cognitive computing. Industry 4.0 fosters what has been called a "smart factory". Within modular structured smart factories, cyber-physical systems monitor physical processes, create a virtual copy of the physical world and make decentralized decisions. Key features include: connectivity (networking the factory floor from the sensor level to the cloud, Big Data (a massive increase in the amount of data collected), user interfaces simplifying technology use (and increasing worker mobility), smarter and more dextrous robots able to work “hand-in-hand” with employees and additive manufacturing – new product designs.

¹⁷ <http://eguma.com/kaizen>

Kaizen was introduced, the machines were dirty, the wiring was tangled and the floor was sticky with oil and waste water. Inside the factory, there were so many defective products scattered there was nowhere to stand. A project team consisting of Mr. Sakai and consultants from the Ethiopian KAIZEN Institute (EKI) gave 180 employees of this company training in the importance of machine maintenance and made them think about the causes of product defects and solutions.”

“One of the basic tools of Kaizen is something known as 5S: sort, set in order, shine, standardize and sustain. In the process of cleaning the machines, workers found loose bolts and oil leaks, and it became clear that the tangled wires were hindering the passage of electric current.”

Further reading: https://link.springer.com/content/pdf/10.1007%2F978-3-319-91400-8_5.pdf

Case 2: Support to the formulation of the manufacturing strategy of Vietnam¹⁸

JICA supported a study to develop the industrial strategy for Vietnam. The objective of the study was to determine a manufacturing sector strategy towards the industrialization of Vietnam by 2020. Specifically, the study identified strategic industrial subsectors on the principle of selectivity and concentration in geographical areas. No budget data available. Duration: 2011 – 2013

The starting point of the study ‘Support to the formulation of the manufacturing strategy of Vietnam’ was that the manufacturing strategy should be part of Vietnam’s general industrialization policy. JICA suggested that a few strategic industries were to be selected based on their potential, orientation to Vietnam’s development and mutual economic and trade benefit of Japan and Vietnam. Moreover, the underlying idea of the manufacturing strategy is to attract substantial Japanese FDI into Vietnam and improving the effectiveness of FDI in general and that of Japan in particular.

JICA’s view of the key stakeholders for realizing this strategy are enterprises from both countries, especially private enterprises as opposed to state-owned enterprises. The study builds a review of existing feasibility studies on Vietnam’s industries and of government policies and strategies. From this material, the criteria for selecting industries for intensive support were mutually agreed on. These criteria included:

- Having an impact on quantity (increase in output, export growth, etc.),
- having an impact on quality (raise of productivity, technology transfer, industry structure, etc.), and
- having the potential to expand the industrial linkages (formation of domestic cluster, participation in the international supply chain, etc.).

After conducting additional studies and surveys on a long list of potential sectors, the short list of 9 sectors, consisting of 5 sectors in the first tier and 4 sectors in the second tier, was identified in March 2012. The first-tier group includes sectors that are considered most promising to become key industries by 2020: electrical and electronics; automobile and car part; food processing; shipbuilding; environment and energy saving; and agricultural machinery. The second-tier group includes those with potential under certain conditions: motorcycle; textile and garment; steel; and automobiles. The subsectors were in line with the policy of the Vietnamese government, and comply with the laws and the protection of the environment.

The study suggested several action plans, such as this excerpt from the plan for developing electronics:

“By 2020, a large center for the new, intelligent and environment-friendly electronic manufacture will be established in Vietnam. In order for that prospect to happen, there is a need to strengthen the research and manufacture mechanism in Vietnam, so that made-in-Vietnam electrical home-appliances can take

¹⁸ http://open_jicareport.jica.go.jp/pdf/12115580.pdf

over larger shares in the growing national market after becoming a middle-income country as well as in the neighbouring countries in the middle of the dynamic economic integration taking place in ASEAN. That established capacity will help Vietnam reach out to the overseas markets in the ASEAN region. In addition, the aim to occupy a top class share in the international market of electronics products requires the establishment of at least a few Vietnamese products as globally leading products (for example, Vietnamese printers to occupy one-third of the global market).

Therefore, along with the efforts to increase the value-add of products created by Vietnamese enterprises in this sector, it is vital to develop step-by-step the sectors of supporting industries, from the stage of mechanical components to electronic components. Actively attracting an anchor enterprise to act as a driving force of this industry is a prerequisite. In addition, in order for enhancement of international competitiveness, great efforts need to be put into not only developing the “hard resources,” but also into training human resources for planning, designing and developing embedded software, and concurrently making the best use of the benefits from the two electronic manufacture clusters (including software) in both North and South Vietnam.”

The Japan Economic Research Institute and the International Development Center of Japan implemented the study and further proposed other practical action plans to create good practice for Vietnam in making and implementing concrete industrial policy.

3. DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT (GIZ)

GIZ does not have a specific focus on manufacturing within its overarching strategy but does conduct a range of manufacturing support services within its work on economic development and employment. The agency does have, among other programmes, explicit manufacturing programmes involving measures to address the greening of industrial production. GIZ aims to establish environmentally-friendly and socially sustainable industrial practices. It supports cooperation with large multinational companies. GIZ supports industrial policy making by giving governments the tools and data to make decisions.

GIZ has over 50 years of experience in a wide variety of areas including economic development and employment promotion, energy and the environment, and peace and security. It is a service provider in the field of international cooperation for sustainable development and international education and has operations in 120 countries globally. Its main commissioning party is the German Federal Ministry for Economic Cooperation and Development (BMZ). GIZ's areas of expertise and services include management services, rural development, sustainable infrastructure, security, reconstruction and peace, social development, governance and democracy, environment and climate change and economic development and employment.

GIZ currently has 1,600 active projects with a value of more than 13.8 billion euros. The two themes associated with the highest number of projects are Governance and Civil Society (234 projects) and General Environmental Protection (206 projects). The theme of Industry is associated with 18 active projects while there are 29 Trade Policy and Regulation projects and 100 Banking and Financial Services projects.

The following table presents the geographic distribution of all GIZ's current manufacturing and non-manufacturing interventions:¹⁹

Region	# of active projects	Value of active projects (million EUR)
Americas	177	1,078
Asia	443	3,505
Africa	497	4,318
Europe	213	1,379
Oceania	4	41
Supraregional, world	267	3,515

The German Government has committed to implementing the 2030 Agenda for Sustainable Development, which forms the basis for the current and future orientation of development cooperation. Against this background, GIZ does not have a specific focus on manufacturing within its overarching strategy but does conduct a range of manufacturing support services within its work on economic development and employment. Various manufacturing support projects can be found on the GIZ website but are not organised in one part of the site. In promoting private sector development, using a systemic, structure-building approach, GIZ aims to establish environmentally and socially sustainable economic practices. Greening of industrial activities is an important focus of their approach to economic development.

Manufacturing (-related) support approaches of GIZ

Capital accumulation

In its programmes, GIZ advises central banks on creating an enabling environment for the microfinance sector and provides assistance to microfinance associations. Working through partners, GIZ mostly supports rural finance for agriculture and SMEs. GIZ advises insurance supervisory authorities on reviewing regulations,

¹⁹https://www.giz.de/projektdaten/index.action;jsessionid=A9E728E439709878E2547BFC818A1F98?request_locale=en_GB#?region=&countries=

promotes training for insurance companies and supports education work for all sections of the population on the principles of insurance. Through the provision of wide-ranging support to its partner countries, especially in the area of banking sector regulation and supervision, GIZ supports properly functioning and stable financial systems. GIZ is currently supporting 35 countries on financial system development.

Internal capabilities of enterprises

GIZ promotes information and awareness raising on green economic development, working to increase awareness within manufacturing firms about climate change and about the adoption of green strategies that could reduce negative climate change impacts on their operations, while also enhancing their competitiveness.

An innovative direction that GIZ is taking is the introduction of digital solutions (Industry 4.0) to support businesses, with the potential to make leaps forward in development. GIZ is currently supporting digital innovations in more than 200 international cooperation (manufacturing-related) projects. GIZ is seizing opportunities to harness the enormous potential of digital solutions for sustainable development and political participation. This includes work in fragile states and disadvantaged regions and with marginalised population groups.

In the Smart Manufacturing Demonstration Lab in China, for example, SMEs with limited technical resources can try processes out for themselves, for instance testing independent and adaptable production steps by networking robots equipped with advanced sensor technology. A core objective of this type of intelligent production is manufacturing tailor-made, individualised products en masse. In 2018, a Memorandum of Understanding was signed between Bosch Vietnam, the Directorate of Vocational Education and Training (DVET), LILAMA 2 International Technology College and the GIZ Programme “Reform of Technical and Vocational Education and Training (TVET) in Viet Nam”. Recognising the need for a highly skilled workforce in Vietnam, an Industry 4.0 Lab, provided by Bosch Vietnam, will be used to train teachers and in-company instructors. The MoU marks the starting point of a development partnership on “Integrating Requirements of Industry 4.0 in TVET” supported by GIZ’s develoPPP²⁰-Programme.

Higher-level policy and regulatory institutional framework

Economic policy and Trade: GIZ economic policy advice for sustainable development aims at boosting growth and employment and focuses on the strengthening of institutions to safeguard macroeconomic stability. GIZ helps partner countries to enhance their competitiveness with strategies in trade policy, contributing to the improvement of entrepreneurial frameworks for potential export sectors and to regional economic integration. In addition, the organisation advises partner countries on developing appropriate systems for assuring the quality of their goods. Recognising that climate change, environmental damage and the over-exploitation of natural resources are consequences of development, GIZ supports partner countries in addressing climate change and environmental protection and social justice as overlapping issues in the Green Economy.

Industrial policy development has gained new momentum for GIZ and sees demand for advice and support in crafting industrial policies that promote more sophisticated and inclusive manufacturing activities as higher value for poorer groups.

Linkages

Depending on the specific context, GIZ combines interventions geared towards strengthening companies and institutions with policy advice and measures to promote networking among relevant actors. Based on incoming value chain analyses, GIZ is developing strategies for targeted support on value chains together with key stakeholders. They support partners in implementing measures that boost competitive advantages of a region and create an enabling environment for the private sector, contributing to local and regional competitiveness.

²⁰ <https://www.developpp.de/en/>

GIZ together with partners are also developing strategies and instruments that strengthen the positive impacts of migration and, in turn, reduce the associated risks.

Through an Industry 4.0 Cooperation programme, GIZ is making an important contribution to establishing fair general conditions for sustainable economic growth in a globally networked world. For example, GIZ's experts are advising decision-makers from the fields of politics, business and the scientific and academic communities on current developments in China and, together with a wide range of actors, devising specific guidance for policy-makers (see Case 3 below).

Infrastructure and energy

GIZ helps to develop sustainable key infrastructure such as water, sanitation and irrigation systems with an imperative to strengthen climate resiliency and adaptation from a pro-poor perspective. In the energy sector, GIZ assists countries in building up and expanding the use of renewables, specifically wind energy, water power, bio energy (especially biogas and biomass) and solar energy. GIZ recognises that an effective transport system and energy infrastructure are the backbone of every modern economy and is addressing challenges such as traffic gridlock, growing environmental pollution or climate change with viable mobility concepts designed to craft sustainable development in a wide variety of areas.

Eco Industrial Development (EID) is a strategy to promote sustainable industrial development tackling environmental, economic and social aspects in a balanced manner. As one approach to mainstream Eco-Industrial Parks (EIPs), GIZ promotes the idea of "Sustainable Industrial Areas" (SIA). For GIZ the concept of Sustainable Industrial Areas represents an important element of its advice to partners in the industrial sector. In 2006, GIZ established the SIA Working Group that contributes to the creation and maintenance of Sustainable Industrial Parks, creates cross-border and cross-sector networks by linking projects that share a common theme. Since 2009, GIZ has organised the International Conference on SIA, providing stakeholders such as GIZ projects, partners and international SIA experts with a platform to exchange ideas and discuss current trends.

For many years, projects addressing various aspects of sustainable industrial development and SIA have been carried out by GIZ in many countries and significant knowhow and experience has been accumulated. The SIA Toolbox is a compilation of these tools and expertise structured along three major phases and ten thematic subtopics. GIZ has also produced the International Framework for Eco-Industrial Parks, a joint collaboration with World Bank and UNIDO which provides an international framework with the minimum requirements and performance expectations as to how an industrial park can become an EIP.

Cases of GIZ manufacturing support programmes

Case 1: Sustainable industrial production²¹

The programme provided support for greening India's industrial zones through individual zone support, policy reform and knowledge dissemination. It proposed new measures for the policies, plans and support programmes intended to prevent or reduce pollution and to improve resource efficiency in industrial zones. Duration: June 2015 - May 2018. Budget: 6.5 million Euro.

The project 'Sustainable and environment-friendly industrial production' (SEIP) was implemented jointly by GIZ and the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India. The aim of the project was to mitigate a number of nationally significant environmental problems, with Indian public and private-sector stakeholders jointly implementing strategies for efficient, environment-friendly and climate-friendly industrial development.

²¹ <https://www.giz.de/en/worldwide/42293.html>

The Government of India wants to enhance the manufacturing sector's contribution to India's gross domestic product, raising it to a 25% share over the course of a decade and creating 100 million jobs. Currently, there are nearly 3,000 designated industrial zones in India. Some of these, such as the industrial corridors, investment regions and manufacturing zones, are very large.

The risks associated with industrial development include higher pollution levels, overuse of natural resources and increased amounts of waste and waste water, posing a threat to ecosystems. The Indian Government has made a clear commitment to achieving industrial growth while also protecting the environment. At the same time, the private sector is increasingly interested in adopting modern processing techniques for clean and resource-efficient industrial production.

The objective to support Indian public and private-sector stakeholders is jointly implementing strategies for efficient, environment-friendly and climate-friendly industrial development. It is expected that the project will lead to the adoption of technological and managerial best practices promoting efficient, environment- and climate-friendly industrial development in 10 industrial zones. The project demonstrates methods for the reduction of acute environmental pollution and for improving resource efficiency in industrial production. This involves piloting technical solutions as well as business and management models at selected sites, achieving positive results and direct impacts in terms of improved environmental conditions. These pilot approaches will serve as examples for subsequent replication nationwide.

The project activities are grouped into (i) environment-oriented modernisation of three industrial areas (showcasing solutions); (ii) establishing conducive conditions at the national and state levels; and (iii) knowledge management and dissemination. These activities focus on the conveyance, treatment, recycling and reuse of waste water, the management of sewage sludge, monitoring systems, and improving processes in individual industries. The measures are complemented by training and skills development, as well as the creation of a virtual platform for the exchange of best practice technologies. GIZ is providing technical cooperation under the project to the identified partner agencies at central, state and local levels, on various identified priority topics. Through SEIP, GIZ also provides advisory support and training delivered through national and international experts.

The project also supports efforts to establish an enabling framework at central and state levels. To this end, it proposes new measures for the policies, plans and support programmes intended to prevent or reduce pollution and to improve resource efficiency in industrial zones. Actors such as industry associations, industrial site operators and private companies, as well as relevant entities at the central and state levels, are all encouraged to get involved in the project at various stages.

GIZ reports that the project has produced training materials and progress has been made in skills development for technicians and other employees of the waste water treatment plants. Seven institutions have so far become affiliated with the Skill Council for Green Jobs and five industrial sectors have reported improvements in the operation of their treatment plants, leading to reduced pollution loads and lower operating costs. One former waste dump in Delhi's Patparganj Industrial Area has been regenerated into a park, and dumps in Vapi Industrial Estate in Gujarat have been removed, with 20,000 trees planted in their place.

A number of short videos with examples of how SEIP has enabled improved water and energy efficiencies within manufacturing can be found on the SEIP 'Success Stories' webpage.²² One such example shows how KKG Industries, a manufacturer of various types of household fans, improved their production processes under SEIP through the installation of an effluent treatment plant for phosphate, use of a more efficient closed drying method that reduced energy consumption, and the installation of energy-efficient lighting throughout their production facilities.

²² <http://seip.urban-industrial.in/e64483/>

Case 2: Enhancing the Quality of Industrial Policies (EQuIP)²³

GIZ's EQuIP toolbox, developed in collaboration with UNIDO, is an integrated package of methodologies for building capacity in formulating structural and industrial policy (SIP). The aim of the EQuIP toolbox is to enable analysts in developing countries to independently develop evidence-based structural and industrial policies with realistic objectives, using a participatory process. Duration: approximately 2014 - ongoing

EQuIP is a toolbox, developed and upgraded by GIZ and UNIDO staff, helping governments and stakeholders to develop an evidence based industrial policy. The aim is to strengthen the ability of lower income countries to manage their own future and to enable them to improve their strategy-setting, policy formulation and engagement with development partners. The toolbox's straightforward analytical tools provide a framework to answer crucial industrial policy questions such as: How is our industrial sector performing relative to competitors? Where is there potential for expansion, upgrading, employment generation or enhanced energy efficiency in our industrial sector? How diversified and embedded is our industry? Answers to questions such as these are vital for successful strategy setting and industrial policy formulation. EQuIP can be used by existing economic policy or private sector development programs in a target country. The budget in each country is flexible pending on the number of trainings and workshops with government officers, private sector representatives, academia and other civil society.

The EQuIP approach was used effectively to build policymaking capabilities during the development of a Strategy of Development of the Industrial Complex of Ukraine for the period up to 2025. One of the achievements noted by the core drafting group was that using EQuIP resulted in significantly improved quality of the Strategy document, drawing in empirically grounded analysis and ensuring consistency between objectives and intervention areas. EQuIP has also been used to build analytical capacity for members of the East African Community (EAC) to assess industrial performance, to support the development of a new textile sector strategy in Myanmar and to design an M&E system to assess the impact of a large subsidy scheme for manufacturers in South Africa.

The EQuIP project also includes an e-Learning course for some key elements of the toolbox to complement hands-on trainings and facilitate the mastering of EQuIP methodologies. The e-Learning course explains the background and the relevancy of the toolkit and provides information about the relation between the tools and key statistical data. Through different modules, it offers a step-by-step presentation of the different tools and their diagnostic methodologies. In addition, sample applications of selected tools (accessing important databases, compilation of key indicators) serve as a demonstration.

Case 3: Sino-German Cooperation on Industry 4.0²⁴

The objective of the arrangement is to deepen mutual economic and political understanding between Germany and China. The project has improved political understanding of the particular characteristics of the other side's industrial-policy approach and has thus put in place an important foundation for future cooperation. Duration: April 2017 – December 2019. Budget: 2.9 million Euro.

Lead executing agency: Ministry of Industry and Information Technology of the People's Republic of China (MIIT). The German strategy for Industry 4.0 envisages comprehensive digitalisation of industrial production and acts as a worldwide benchmark with regard to the modernisation of industry and the integration of manufacturing processes. China is pursuing similar objectives with its '[Made in China 2025](#)' and '[Internet Plus](#)' initiatives.

²³ <http://www.equip-project.org/>

²⁴ <https://www.giz.de/en/worldwide/71332.html>

Against this background, the German Federal Ministry for Economic Affairs and Energy (BMWi) and the Chinese Ministry of Industry and Information Technology (MIIT) signed a Memorandum of Understanding (MoU) in July 2015 that communicates their intention to promote cooperation in the area of intelligent manufacturing. BMWi commissioned the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in 2016 to implement these plans.



The objective of the arrangement is to deepen mutual economic and political understanding between Germany and China. Dialogue mechanisms have been established, intensified and interlinked. This intends to improve economic conditions in China and contribute to the ongoing development of a liberal trade system. The project is responsible for facilitating the political dialogue between BMWi and MIIT, for identifying and highlighting bilateral cooperation projects, for monitoring developments in the area of Industry 4.0 in China, for institutionalising the dialogue between German and Chinese stakeholders as well as serving as a liaison office in Beijing.

GIZ operates a central working office and point of contact in China in the area of Industry 4.0. As a federal enterprise, GIZ cooperates here with political, economic and societal stakeholders in both countries and is supporting political exchange in a coordinating and advisory capacity. The project is working closely with the Industry 4.0 platform and the German Embassy in China. To help establish equal competitive conditions for German and Chinese companies, the project often introduces new topics, such as cybersecurity, into its cooperation activities. Cooperation takes place on a more detailed level with the assistance of dialogue platforms such as the 'Company Industry 4.0 and Intelligent Manufacturing' Working Group and the 'Digitalisation and Industry 4.0' steering committee.

As a result of the project's work, core channels of communication have been established between German and Chinese stakeholders from the fields of politics and business. The Company Working Group is particularly noteworthy in this regard. It acts as an open platform for the ongoing exchange of information and advice between German and Chinese companies, experts and other interested parties.

The project has improved political understanding of the particular characteristics of the other side's industrial-policy approach and has thus put in place an important foundation for future cooperation. The project is also advising BMWi with the aim of furthering development of Sino-German cooperation with a focus on additional digitalisation issues. By 2016, the project had prepared the first Sino-German Symposium on intelligent manufacturing and Interconnected Production Processes and first Annual Conference on State Secretary/Vice Minister Level as well as establishing the Sino-German Company Working Group on intelligent manufacturing and Interconnected Production Processes (CWG). The Sino-German Industry 4.0 Demonstration and Training Center aims to draw on the global network of TUV Rheinland to introduce the latest international technical resources and education system to the Shenzhen No. 3 Vocational School of Technology for the building of an advanced intelligent manufacturing demonstration production line and training center in Shenzhen, which is expected to be completed the end of 2019. The TUV Rheinland Shenzhen Quality Control System Training Center has been offering 25 courses to more than a thousand enterprises in Shenzhen and has trained over 12,000 people in high-level application technology so far.²⁵

²⁵ TUVs are German consulting businesses that specialize in certifying compliance with various recognized safety and qualification standards. <https://www.pv-tech.org/news/tuv-rheinland-supporting-transition-to-industry-4.0-in-china>

4. DUTCH MINISTRY OF FOREIGN AFFAIRS (DGIS/DGBEB)

DGIS combines trade and aid in its development approach; low- and middle-income countries are not only recipients of aid but are expected to become trade partners. While the agency does not have a manufacturing support strategy, the Dutch government encourages investment and trade activities in these countries via SME development, Corporate Social Responsibility in global value chains and innovative financing and investment.

As an overarching principle, the Dutch Ministry of Foreign Affairs promotes sustainable economic growth in developing countries involving a combination of trade and development cooperation. Under the ministry, the Directorate-General for International Cooperation (DGIS) and the Directorate-General for Foreign Economic Relations (DGBEB) joined forces to implement the Foreign Trade and Development Cooperation policy (in Dutch: Buitenlandse Handel and Ontwikkelingssamenwerking (BHOS)). Overall, the BHOS policy promotes four connected objectives, strongly anchored in the SDGs: (i) preventing conflict and instability; (ii) reducing poverty and social inequality; (iii) promoting sustainable and inclusive growth and climate action worldwide; and (iv) enhancing the Netherlands' earning capacity.²⁶

The BHOS policy focuses on low- and middle-income countries, with the view that these countries are not only recipients of aid but are also positioned to become future trade partners where productive activities, including manufacturing, take place. The policy emphasizes the facilitation of the transition process from aid partners to trade partners. Three types of relationships are defined in this respect:



Mobilising the private sector is critical to the Dutch approach. The transitional relationships, combination of aid and trade can benefit both the developing country and the Netherlands. The subsequent trade relationship links trade and development cooperation. There is an extensive package of instruments such as Private Sector Development (PSD) instruments and trade and investment instruments for Dutch companies wanting to do business in developing countries.

Regarding the promotion of the manufacturing sectors along with developing these relationships, there are no explicit manufacturing policy and programme objectives or development priorities/targets defined within the BHOS policies. However, the many trade, investment and private sector development programmes do support the manufacturing sector implicitly. There are a number of underlying principles and elements of the novel and original approaches that could be relevant for DFID's future manufacturing portfolio.

²⁶ See separate BHOS policy document 'Investing in Global Prospects' (May 2018).

Essential elements in Dutch programmes for manufacturing support

Financing for capital accumulation is essential for manufacturing. The BHOS policy promotes new forms of innovative financing. Despite the fact that it is not explicitly geared towards manufacturing, the Dutch government helps mitigate the risks of doing business and investment internationally, for example in managing exchange rate risk through the TCX Fund.²⁷ To further improve the balance between risk and return, the Dutch government is making use of various forms of blended finance and impact bonds. These programmes are implemented in cooperation with national and international financial institutions, private parties, multilateral partnerships and other donors, including DFID. These innovative forms of finance and investment can be useful for capital-intensive DFID manufacturing programmes.

Internal capabilities of enterprises

The Dutch Foreign Ministry is providing direct technical support to manufacturing enterprises in the Netherlands. The Senior Experts Programme (PUM) recruits Dutch retired technicians and engineers in several manufacturing fields to provide short-term advice on the ground to manufacturing enterprises. The PUM approach is further described below in Case 1 of a manufacturing related programme example.

Higher-level policy and regulatory institutional framework and investment system

Related to the manufacturing sector and investment, the Dutch government supports legislation and reliable official bodies and other organisations to build a favourable business climate in developing countries, which includes tax administration, registration procedures and customs services amongst others. This brings low- and middle-income countries more into line with international trade laws and practices. The Netherlands is exploring the scope for setting up an advisory centre on international investment law. Such a centre could provide the governments of developing countries with legal assistance in disputes with companies on the basis of an investment agreement.

The Netherlands is also advocating an investment facilitation agreement, along the lines of the WTO trade facilitation agreement. The aim of the agreement would be to attract investment and ensure that investment projects contribute more to sustainable and inclusive growth in developing countries, for example by transferring knowledge or encouraging businesses to invest in basic infrastructure. The Netherlands is working with other countries and organisations like UNCTAD, the OECD and the G20 to identify possible provisions to be included in an investment facilitation agreement. Again, these programmes do not have an explicit manufacturing promoting agenda, yet implicitly they are of great importance for investors in the manufacturing sector. Specific DFID manufacturing programmes could be linked to such investment programmes.

Intermediary business support organisations

The Dutch approach engages various intermediary business support and stakeholders' organisations such as trade unions, employers' organisations, business cooperatives and standards agencies. These organisations actively support SMEs and start-ups in their efforts to innovate and expand their international presence, although not particularly focusing on manufacturing enterprises. Support is provided to initiatives like Trade Mark East Africa (also financed by DFID), the West Africa Trade Facilitation programme and the Centre for the Promotion of Imports from Developing Countries (CBI), presented below in Case 2 of a manufacturing related programme example.

²⁷ TCX (Currency Exchange Fund) provides products that protect its clients against long-term currency risk. The fund provides these products in more than 70 low- and middle-income countries where commercial financial institutions cannot meet clients' needs.

Linkages

Developing countries are increasingly seeking economic collaboration with Dutch companies in the top Dutch sectors.²⁸ The BHOS policy aims to facilitate cooperation to achieve a higher level of quality and innovation in developing countries. The Netherlands supports local companies in developing countries and stimulates Dutch companies to make their expertise available and to contribute with innovative solutions to local development. The Facility for Sustainable Entrepreneurship and Food Security (FDOV) encourages public-private partnerships in the fields of food security and private sector development in developing countries, some of which includes manufacturing. Since 2014, 150,000 jobs were created in the formal sector as a result of private sector development in relation to food security.

Improving infrastructure in developing countries

The Netherlands operates programmes to develop both public and private infrastructure that supports the construction of good roads, ports and power supply systems in low- and middle-income countries. The [Development Related Infrastructure Investment Vehicle \(DRIVE\)](#) programme enables companies to include a more attractive and efficient financing plan when tendering for infrastructure projects in developing countries. DRIVE provides additional finance for investments in expansion and/or quality improvement of public infrastructure that improve the development of the private sector by promoting entrepreneurship, productivity and employment opportunities, and by lifting wages. Other programmes involve multi-donor initiatives. Examples include the Private Infrastructure Development Group (PIDG) in which DFID participates and the Infrastructure Development Fund (IDF). The largest programme targeting investment in infrastructure is the Infrastructure Development Facility (ORIO).

Novel trends for manufacturing programmes

Innovation - Digital technology for development

The BHOS policy challenges Dutch businesses and knowledge institutions to contribute to the innovative achievement of the SDGs, particularly involving ‘minor’ and ‘major’ technical innovations. Minor innovations may include, for example, modifying existing technology to suit a specific context; major innovations could entail system-wide breakthroughs on energy and other transitions. The underlying idea is to strengthen Dutch innovative capacity and competitive position, while applying and marketing new insights and solutions for the SDGs worldwide.

The Dutch government is currently developing a digital strategy to promote innovation for development based on the idea that digitalisation is the driver of innovation and economic activity. These new technologies should help achieve a breakthrough in solving societal challenges, such as the transition to a circular economy. Interactive apps, big data analysis and blockchain applications are targeted because of the high degree of mobile internet coverage in developing countries. For developing countries, digitalisation offers opportunities to leap forward. Local businesses in developing countries, including manufacturing, can easily and directly link to the world market. Digitalisation is changing the nature of global trade as well as local administration and governance, for example in increasing the transparency of economic transactions and interactions with formal institutions. Although the digital strategy is not specifically targeted at the manufacturing sector, it is still very relevant and further manufacturing programmes could link up with such digitalisation programmes.

²⁸ Agriculture and food, creative industries, chemical industry, energy, high-tech systems and materials, horticulture, life sciences & health, logistics and water.

CSR Integrated approach to sustainable value chains

The Dutch government is pursuing an integrated CSR approach to sustainable value chains, together with the business community and non-governmental organisations like Solidaridad, the Sustainable Trade Initiative. The aim is to utilise the Netherlands' economic weight and trade and development relations to bring about positive change in acknowledging responsibility for inclusive development. An example is the Holland Circular Hotspot platform, part of the government-wide Circular Economy programme. Through this programme, the Dutch government is supporting developing countries in making the transition to a circular economy, where possible by applying Dutch knowledge and expertise. This entails assessing resource consumption, CO2 emissions and waste flows, and then focusing on reuse, recovery and recycling. Through this programme, the Netherlands is also engaging with international public-private platforms like the Platform for Accelerating the Circular Economy.

Cases of manufacturing support programmes of DGIS

Case 1: Netherlands Senior Experts (PUM)²⁹

The 'Netherlands Senior Experts' programme (PUM) provides direct technical support to manufacturing companies and companies in other sectors in developing countries. PUM has mainly been funded by the Netherlands Ministry of Foreign Affairs from its development aid budget. Ongoing programme. Budget: 12 million EUR annually.

PUM has established a network of about 150 representatives in approximately 30 countries around the world. Through this network, representatives connect directly with entrepreneurs, business support organisations and partners locally. In its (advice) activities in various sectors, PUM makes available technical expertise from 2,000 senior experts, who share their knowledge on a one-on-one basis. Experts work either through short-term and repetitive advisory missions on the work floor, or through online coaching activities.

Many of the experts are engineers and technicians from the manufacturing sector in the Netherlands. PUM senior experts include advisors with backgrounds in food and beverage production and engineering, chemical and synthetic materials, textiles and leather, metals and construction.

One example of the manufacturing expertise of PUM concerns the composites and plastics industry.



(Source: <https://www.annualreportpum.nl/factsheet/>)

The Netherlands hosts some of the largest plastics producers in the world. It has built a high quality knowledge base, supported by the high quality technical education in the Netherlands, which includes laboratory research on novel methods of materials reclamation for the recycling of plastics at the consumer level as well as on an

²⁹ <https://www.pum.nl/>

industrial scale. Products derived from composites are used in the manufacture of everything from airplane wings, car roof tops, polyester boats, and electronics, to building facades and meter boxes. PUM experts advise and support manufacturing enterprises manufacturing enterprises in Africa and Asia on their production of plastic compounds and composite converters. PUM also helps companies to upscale production efficiency and to attain next higher levels of end-product quality.

Another example is from the animal feed manufacturing subsector. Dutch expertise is provided for improving production processes such as grinding, mixing, pelleting and packaging. PUM engineers design production chains as well as demonstrate proper use of equipment including the laboratory and quality assurance of animal feed, such as early detection of toxic or undesirable substances in feed. They provide training to design a laboratory and to manage operations.

In an evaluation of PUM support from 2012-2015³⁰ the immediate outcomes were improved knowledge among the supported SMEs and supported intermediary organisations and changes in business practices (capacities, behaviour, CSR). Overall, the evaluation signals improved performance by supported companies and an improved production capacity in various sectors in target countries as well as increased exports to the Netherlands and EU.

Case 2: Centre for the Promotion of Imports from Developing Countries (CBI)³¹

CBI assists entrepreneurs from developing countries to gain access to EU markets. CBI provides specific EU market opportunity information for manufacturing subsectors such as footwear, apparel, electronics and electrical engineering, metal parts and components, automotive parts and components, pipes and process equipment, home decoration and home textiles, processed fruit and vegetables. Budget: 25 million EUR annually.

The Centre for the Promotion of Imports from Developing Countries (CBI) was established in 1971 based on the idea that trade is a good means to stimulate economic growth, promote employment and alleviate poverty. The goal is to promote integration in global value chains. CBI targets export production and trading companies in Africa and Asia and involves business support organisations, governments and international organisations. The organisation is funded by the Netherlands Ministry of Foreign Affairs. The annual budget is about 25 million euros. CBI is active in over 35 countries and in more than 25 sectors at present.

As a result, CBI supports more than 800 entrepreneurs annually to become successful exporters on the European market through export coaching projects. Moreover, CBI publishes around 450 detailed market studies every year on market opportunities for companies in developing countries. It further provides technical support to business support organisations in developing countries to increase the added value for their exporting members, develops market information on potential export sectors in Europe, informs and influences policy makers and involves importers in the development and implementation of programmes.

Corporate Social Responsibility (CSR) is a starting point for all activities. When sectors and countries are selected to start new programmes and select companies to participate CBI does not just look at opportunities on the European market, but also at opportunities for reducing CSR risks.

An evaluation of CBI's performance between 2005–2012 shows that the export coaching programmes successfully helped companies to overcome a lack of information about export markets. However, for many of

³⁰ An independent evaluation study commissioned by the Netherlands Ministry of Foreign Affairs, <https://www.rijksoverheid.nl/documenten/rapporten/2016/08/22/bijlage-kamerbrief-inzake-aanbieding-evaluatierapport-pum-senior-experts-programma-2012-2015>

³¹ <https://www.cbi.eu/>

them it was not enough to get them exporting to Europe (about half of the companies showed an increase in exports). While CBI evaluations³² of business support organisation programmes revealed that interventions were generally relevant, the difficulty in measuring technical assistance to BSOs means there is little information on their effectiveness. From 2012 onwards, CBI changed from a product-oriented to an integrated, programme-oriented country approach based on a value chain analysis.

³² <https://www.cbi.eu/news/changing-better>

5. INTERNATIONAL FINANCE CORPORATION (IFC)/WORLD BANK

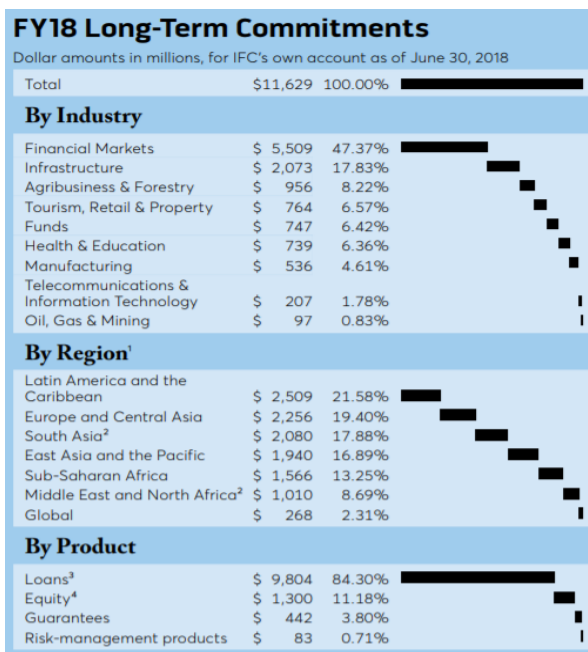
IFC is the largest global development institution focused exclusively on the private sector in developing countries. It invests in manufacturing to promote competitive industries and higher incomes through the transfer of technology, innovation and skills. IFC is a leading mobilizer of third-party resources for projects, operating on a commercial basis and investing exclusively in for-profit projects in developing countries. Its financial products enable companies to manage risk and expand their access to foreign and domestic capital markets.

The International Finance Corporation (IFC) is a member of the World Bank Group. IFC is the largest multilateral financial institution investing in private enterprises in emerging markets, with activities in 130 countries. The IFC's stated aim is to create opportunities for people to escape poverty and achieve better living standards by mobilizing financial resources for private enterprise, promoting accessible and competitive markets, supporting businesses and other private-sector entities, and creating jobs. Since 2009, the IFC has focused on a broad set of development goals related to: sustainable agriculture opportunities, improving healthcare and education, increasing access to financing for microfinance and business clients, advancing infrastructure, helping small businesses grow revenues and investing in climate health.

IFC acknowledges that the manufacturing sector is vital for development. IFC's new long-term commitments for its own account in the manufacturing sector totalled \$536 million, which is only 4.61% of the total of long term commitments. The annual report 2018 states that IFC's manufacturing clients tend to create or maintain more employment than those in any other sector.³³ In FY2018, compared to past years, IFC has increased its activities in the sector, which includes chemicals, construction materials, energy-efficient machinery and transportation machinery.

IFC recently announced that it will de-emphasize some traditional, lower value add manufacturing sectors in East Asia and the Pacific, while there will be an increased focus on the higher value add sectors and more innovative companies.

IFC increasingly invests in and advises companies that are developing new products and markets, and are restructuring and modernizing to become internationally competitive. As these industries represent some of the most carbon-intensive sectors, IFC is helping clients develop and undertake investments that help reduce carbon emissions and energy consumption.



³³ IFC Annual Report 2018 is included in separate set of donor PDF documents.

The regional spread of manufacturing programmes of IFC of completed and on-going projects³⁴ is as follows:

Region	# active and completed programmes	Share
East Asia and Pacific	25	17.6%
Europe and central Asia	34	23.9%
Latin America and Caribbean	18	12.7%
Middle east and North Africa	14	9.9%
South Asia	24	16.9%
Sub-Saharan Africa	21	14.8%
World	6	4.2%
Total programmes	142	100.0%

Products lines of IFC

IFC's financial products enable companies to manage risk and expand their access to foreign and domestic capital markets. IFC operates on a commercial basis and invests exclusively in for-profit projects in developing countries. IFC finances projects and companies through loans and equity investments for developmental support and long-term growth capital of private enterprises. Moreover, IFC provides trade and commodity finance, syndications and derivatives products for hedging purposes and blended finance. IFC uses several tools to crowd in private financing that would otherwise not be available for high impact development projects.

In addition, IFC provides direct technical assistance to companies to improve productivity and standards, and to help them in their positioning within value chains. With regard to management, IFC supports corporate management to enter new markets, attract investors, and structure complex projects, offering advice on the design and execution of mergers, acquisitions, and partnerships. Companies then improve their access to capital, mitigate risk, and safeguard against mismanagement by improving their corporate governance. IFC helps integrate environmental and social risk management considerations into companies' operations to achieve long-term success. IFC assists companies to provide benefits to local communities and mitigate local risks in projects with regard to natural resources and the environment. IFC offers tools and training to help companies construct buildings that use energy, water, and materials more efficiently

Another target group of IFC is the financial institutions that assist with strengthening risk management and diversifying product offerings in categories such as SME finance, gender, housing finance and sustainable energy. IFC help develop the private equity industry in frontier markets and provide advice to fund managers and SMEs in which the funds invest.

Lastly, IFC is engaged in public-private partnerships, helping governments design and implement linkages that are tailored to local needs, that help solve infrastructure bottlenecks, and that achieve national development goals and improve the business environment through reforms that promote investment. IFC provides verification of whether the higher-level policy and regulatory institutional framework provides a supportive environment to minimise risks of the finance project.

³⁴ An Excel spreadsheet of IFC completed and on-going manufacturing project is provided separately.

IFC has used its different instruments (equity investment, lending, technical assistance) in completed and ongoing programmes to support manufacturing as follows:

Product lines in IFC manufacturing programmes	# programmes	Share
Equity	10	7.0%
Loans	46	32.4%
Other (company TA in combination with loans and equity)	86	60.6%
Total programmes	142	100.0%

Manufacturing sectors

In various countries, IFC applies a sector focus to its manufacturing (-related) programmes. The most prominent subsectors IFC in which has programmes are the following:

Textiles and apparel: IFC brings together public and private stakeholder partnerships, including international apparel buyers, supplier factory owners, governments, industry organizations and other international partners to promote environmental and social sustainability of the apparel industry. IFC promotes access to finance through innovative programs to provide short-term working capital or trade finance, as well as direct investments in companies. IFC programs and platforms help global buyers support their suppliers through guarantees (see GTSF below). They also help manufacturers obtain the technical knowledge they need to improve environmental and safety standards.

IFC's engagement in the garment and textile sectors is demonstrated by the Global Trade Supplier Finance (GTSF) programme. Launched in 2010, the programme provides short-term, post-shipment capital to suppliers in emerging markets, immediately after the buyer agrees to pay. The financing is automated, making capital available to suppliers quickly and conveniently. From the programme's inception through spring 2017, IFC had provided \$1.2 billion in short-term financing to global apparel and footwear suppliers. Some of the benefits GTSF offers suppliers, their workers and the environment include the following:

- Suppliers' interest rates are based on a combination of the buyers' cost of credit and suppliers' performance against the buyer's Environmental and Social (E&S) standards (buyers include Levi's, Puma and Nike).
- Suppliers receive monetary incentives in the form of lower interest rates to make E&S improvements.
- Suppliers of all sizes get a more level playing field, because they are provided with access to finance at competitive terms.

Automotive and machinery: IFC's automotive industry knowledge spans the range of production processes, from component manufacturing to vehicle assembly and distribution. The expertise extends from the automotive sector to rail and air transportation equipment and components, shipyards, and selective automotive consumer services such as fleet management, car rentals, and consumer financing. Focus areas for the IFC in the automotive industry are process and product innovation and environmental leadership. Innovation is sought for increasing competition and assuring that regulatory and environmental requirements are met. IFC projects seek to maximize the use of best industry and environmental practices, enabling IFC clients to compete successfully and contribute to long-term domestic and global sector growth.

Construction materials: IFC has invested over \$4 billion USD in the building materials sector. This has helped increase the availability of affordable local sources, which are critical to developing a thriving construction sector and to building the physical infrastructure that countries need for economic growth and poverty reduction. IFC can help clients improve their environmental profile, reduce waste, strengthen corporate governance, and build

stronger relationships with local communities. IFC's partnership with clients extends beyond environmental, health, and safety management systems to encompass energy efficiency, control of gas and dust emissions, quarry rehabilitation, resource recovery, and local community development programs. IFC has consistently found a strong business case for environmental and social sustainability. Through long-term investments in cement and glass industries in emerging markets, IFC is increasing the availability – and affordability – of locally produced building materials.

Chemicals and fertilizers: IFC chemical and fertilizer clients include a diverse range of local companies in emerging markets as well as multinationals investing in these markets. Their products meet a wide variety of client needs: Greenfield and expansion projects, modernisation programmes, energy efficiency, acquisitions, financial restructuring and improvements in environmental, health and safety performance. IFC will finance the following activities: fertilizers and crop protection; petrochemicals; inorganics; specialty chemicals; refining; and distribution. IFC has a chemical and fertilizer investment portfolio of \$6.5 billion USD across 308 projects in over 50 countries.

Renewable energy: IFC investments in renewables focus primarily on solar and wind technologies. IFC has been involved in financing solar photovoltaic (PV) technology since 1989. IFC's objective is to encourage an industry-wide shift to production in emerging market countries by selectively investing in PV projects. From an industry perspective, this shift will help accelerate cost reductions and achieve grid parity, with a goal of enabling solar PV to become a competitive source of renewable energy—and making solar PV affordable for the world's poor, who lack access to electricity.

Responsible manufacturing

In cooperation with ILO, IFC is working in the 'Better Work' programme with different industry groups, including apparel companies, retailers and brands who have committed to a binding agreement between brands and trade unions. IFC has played a convening role in bringing together public and private stakeholders under the initiative. This agreement is designed to work towards a safe and healthy working environment and to improve social, economic and ecological conditions in the cotton and apparel value chain. It helps participating countries raise standards in their apparel sectors and helps buyers verify that their environmental and social standards are upheld throughout their supply chains.

Infrastructure

A large portion of IFC long term commitments are aimed at improving infrastructure in the target countries, in particular for transport and electricity. In FY 2018 this amounted to \$2,073 million (17.83% of all long-term commitments). This is not directly targeted at manufacturing.

Cases of manufacturing support programmes of IFC

Case 1: Partnership for Cleaner Textile Programme (PaCT) – Bangladesh³⁵

IFC supports the textile industry in adopting cleaner production in Bangladesh. PaCT has partnered with 200 textile factories to support them to implement sustainable, resource efficiency projects. The additional investment of the second phase is to enable the programme to reach an additional 250 factories. The programme engages with brands, government, communities, financial institutions, and other stakeholders.

³⁵ <https://www.textilepact.net/>

The Partnership for Cleaner Textile (PaCT) is a holistic program led by the International Finance Corporation (IFC) that supports textile wet processing factories in adopting cleaner production. It engages with brands, government, communities, financial institutions, and other stakeholders to bring about systemic, positive environmental change for the Bangladesh textile wet processing sector, its workers, and surrounding communities, and to contribute to the sector's long-term competitiveness. PaCT was launched in 2013 and is currently in its second phase, supported by an addition USD \$7m from IFC. The program is led by IFC in partnership with NGO Solidaridad, the Embassy of the Kingdom of the Netherlands, 13 global apparel brands and 2 technology suppliers, textile factories, and the Bangladesh Garment Manufacturers and Exporters Association (BGMEA).

PaCT helps factories identify and implement Cleaner Production measures in water, energy and chemical use in the dye house, within the factories' utilities and effluent treatment plants (ETPs), and through housekeeping. These measures are typically low-cost, easy to implement, factory-specific and can maximize profits by making more efficient use of inputs (such as energy, water, or chemicals), while maintaining or increasing production and minimizing waste and pollution at source. At the end of the first phase, PaCT had partnered with 200 textile factories to support them to implement sustainable, resource efficiency projects. These projects led to huge savings in resources and are also realizing cumulative cost savings of USD 16.3 million/year for these factories. The additional investment of the second phase is to enable the programme to reach an additional 250 factories.

Unfortunately, what stood as a barrier between Comfit and the resource efficiency upgrades was access to appropriate forms of finance, as some of the recommended upgrades were capital intensive and required external sources of funding. PaCT introduced Comfit to partner financial institution IDLC finance Ltd who provided a simplified loan application process based on PaCT's assessments. As a result of PaCT's support, Comfit obtained a five-year loan of USD 126,580 in a shorter amount of time and with preferential interest rates. Only personal and corporate guarantees were used to secure repayment of the loan; no other collateral was required.

PaCT's integrated financing approach- that Comfit was able to tap into- plays a leading role in bridging the gap between financial institutions, textile factories and technology providers. It facilitates textile factories to access financing for resource efficiency projects and supports financial institutions in evaluating resource efficiency projects and developing innovative financing models. For the case study above, IDLC was able to create a diversified credit portfolio, structure a blended model of finance that facilitated finance at attractive terms and arrange an investment grade efficiency audit at the Comfit factory.

PaCT is also a holistic program, looking beyond factory assessments to engage with brands, and with key stakeholders such as government, financial institutions, and communities, on the sector's overall transition towards more resource-efficient production. In addition to factory level support, PaCT has also achieved the following:

- In partnership with BGMEA, PaCT has launched the Bangladesh's first ever Textile Technology Business Center (TTBC). Housed at BGMEA, TTBC provides factories with reliable and comprehensive technical information and facilitate B2B linkages
- PaCT is helping the Bangladesh Central Bank to develop a \$500 million green fund to support factory investment in CP
- With input from partner brands, PaCT has prepared a Decision Support Guidance (DSG) manual, to guide brands on the environmental impacts of their product design and sourcing decisions and help them work with their suppliers on cleaner options
- To strengthen the enabling environment for update of CP measures, PaCT is creating a platform for community and national dialogue on sustainable water use in the textile sector, for example, identifying opportunities for policies and regulations that encourage greener, more competitive production methods

- For the first time in Bangladesh, PaCT is working in Konabari manufacturing cluster, north of Dhaka, to mobilize community, textile factories and local government to develop a joint vision and road map for a Cleaner Cluster.

Case 2: The Kenya Tea Development Agency Ltd. (KTDA)³⁶

The Kenya Tea Development Agency is providing management services in the tea industry, in particular to the smallholder tea sub-sector for efficient production, processing and marketing of quality teas. IFC financed the construction of warehouses for handling and storage, and strengthened the environmental, social, health and safety standards utilized. Moreover, IFC offered expertise on potential expansion areas and opportunities to engage in advisory services. IFC's Investment: \$12 million in long-term debt financing.

The Kenya Tea Development Agency Ltd. (KTDA) was established in 2000 and is owned by 54 tea companies which, in turn, have 550,000 small tea farmers as individual shareholders. The tea companies collectively own 66 tea processing factories. KTDA emerged from the privatization of the Kenya Tea Development Authority, a parastatal agency created in the 1960s to support small farmers. KTDA's services cut across the entire tea value chain and include inputs and agri-extension, transportation, warehousing, processing, marketing and financing.

IFC invested in long-term debt financing to finance the construction of a new warehouse complex for handling and storage. IFC strengthened the environmental, social, health and safety standards utilized by KTDA and offered expertise on potential expansion areas for the company, as well as explore opportunities to engage in advisory services.

As of 2013, KTDA was the second largest exporter of tea in the world and over 60% of the tea produced in Kenya is grown at KTDA farms. KTDA's 66 tea factories produced 1.1 million tons of tea worth around \$800 million in revenues in 2012.



KTDA's largest buyer is Unilever, which sources approximately 30% of KTDA's annual production. KTDA's 550,000 small tea farmers cultivate over 126,000 hectares of land. On average, a KTDA farmer supplies 2,000 kg of green leaf or 450 kg of packaged tea. KTDA tea fetches prices 12% above the average price of tea sold at the world-renowned Mombasa auction. KTDA farmers typically earn 70% of their income from tea production. A KTDA tea farmer can expect to receive 75-80% of the final tea price; this is a much higher pay-out than that of small tea farmers in neighbouring countries. The average per kg payment for a KTDA farmer has increased from KSH 23.99 (\$0.27) per kg of green leaf in 2001 to KSH 45.65 (\$0.52) per kg of green leaf in 2013.

In 2013, there were 820 Farmer Field Schools managed by KTDA extension staff to train tea farmers. The Rainforest Alliance has certified 54 factories in sustainable agriculture practices while the Fairtrade Foundation has certified 13 factories for Fairtrade. Sustainable practices have enabled farmers to increase yields by 36% on average and to receive premiums from buyers of Rainforest Alliance certified teas. Over 62,000 farmers have received loans via KTDA subsidiary Greenland Fedha. In 2012, over 19,000 loans below KSH 70,000 (\$796) were disbursed electronically via the M-Pesa mobile money service.

³⁶ <https://www.ktdateas.com/index.php>

6. UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO)

UNIDO's mandate is to promote and accelerate inclusive and sustainable industrial development (ISID). It has developed an integrated approach toward manufacturing, ranging from specialised technical support assistance to higher level industrial policy and regulatory framework. UNIDO also supports the adoption of soft and hard infrastructure, of energy and resource efficient technology and innovation systems, as well as provides technical assistance to build the capacities at institutional and enterprise levels, to improve the investment climate, and to improve value chain development and market integration. The programmes for country partnership, including the development of industrial strategy, is an example of a comprehensive approach towards manufacturing support.

UNIDO is the specialised agency of the United Nations that promotes industrialisation for poverty reduction, inclusive globalization and environmental sustainability. In essence, UNIDO's agenda is to drive structural transformation towards the industrial sector in developing countries. In 2013, UNIDO agreed upon its current development priorities placing special emphasis on inclusive and sustainable industrial development (ISID) including social equity, economic growth and environmental protection. Today, UNIDO provides services addressing the interlinked challenges of reducing poverty through productive activities, integrating developing countries in global trade through trade capacity-building, fostering environmental sustainability in industry and improving access to clean energy.

UNIDO's programmatic focus is structured in four strategic priorities: (i) creating shared prosperity; (ii) advancing economic competitiveness; (iii) safeguarding the environment, and; (iv) strengthening knowledge and institutions. The priorities are informed by the global development agenda, and thus aim to improve accessibility to opportunities and productive assets for all segments of society and support responsible consumption and production patterns. With an effort to leaving no one behind this implies an equitable distribution of income and non-income gains across society. This includes improving the opportunities for productive activities for the most vulnerable groups of society, including youth and women, as well as populations in post-crises situations and migration prone areas. Considering the concentration of these groups in rural areas that continue to depend on agricultural activity, UNIDO's support includes the development of agro-industries and related services to increase productivity and add value to agricultural production, including through strengthened forward and backward linkages and the integration of SMEs along value chains to support formalization of employment. Within these priorities, key focus areas are analytical and research function and policy advisory services, normative function and activities related to standards and quality, and its convening function and partnerships.

In 2011, the DFID Aid Effectiveness Review of Multilateral Aid highlighted that UNIDO lacked a systematic approach to results based management (RBM) and not all projects had results frameworks. DFID found that identifying interventions results from publicly available sources was not straightforward. For this reason, and as UNIDO was assessed as not fitting well with DFID's overall priorities, DFID stopped providing core funding to the organisation. UNIDO has recognized these shortcomings and acting upon recommendations, is developing a more structured and rigorous framework for RBM within the integrated results and performance framework (IRPF).

Manufacturing (-related) support approaches of UNIDO

As of April 2019, UNIDO had a portfolio of 818 ongoing industrial and manufacturing projects and had spent a total of \$190 million/£144 million GBP for the year 2018. The total budget allocated for these 818 projects across multiple years is over \$1,438 million/£1.1 billion GBP.³⁷

Number of active projects, 2018	Total budget for all active projects	Total expenditures in 2018
818	£1.1 billion GBP	£739 million

For regional projects, the largest share of the budget in 2018 was assigned to Global projects and Africa.

Region	2018 Expenditures in GBP ³⁸
Africa	£7.9 million
Arab Regional	£3.0 million
Asia & Pacific	£2.4 million
Europe	£3.8 million
Global	£29.1 million
Inter-regional	£4.5 million
The Americas	£2.2 million

By thematic priorities, the spread is as follows:

Theme	Number of active projects ³⁹	Total budget GBP	2018 expenditure GBP
Creating shared prosperity	148	£151 million	£33 million
Advancing economic competitiveness	143	£180 million	£35 million
Safeguarding the environment	427	£716 million	£129 million
Others	100	£29 million	£11 million

Projects focusing on safeguarding the environment make up the largest part of the budget of ongoing projects, encompassing new green industries, establishing national road maps for greening supply chains, determining benchmarks and indicators, disseminating and sharing best practices, running clean technology programmes, undertaking various capacity-building exercises and contributing to international forums with the necessary research and expertise. UNIDO's work on economic competitiveness aims at placing industries in global value chains to provide access to increased trade and FDI opportunities; at a micro level, UNIDO supports investment and technology promotion, SME development and trade capacity building and improvement of the business, trade and policy environment for the private sector. Under creating shared prosperity, UNIDO focuses on adding value to agricultural production by strengthening linkages between agriculture, industry and markets, supporting the formalisation of informal enterprises by simplifying registration procedures and increasing the participation of women and youth in productive activities

The most distinct feature of UNIDO's industrialization support is its integrated approach. In the 1990s and early 2000s UNIDO mostly implemented its programmes with a sectoral focus. Today, UNIDO is providing an increasingly integrated set of services rather than single interventions. The integrated approach involves strong ownership by governments. Usually there is a co-financing component, which involves the World Bank and

³⁷ <https://open.unido.org/projects/list>

³⁸ Converted at exchange rate of 1GBP = 0.75694 USD as of July 2, 2018.
<https://www.oanda.com/currency/converter/>.

³⁹ As of April 2019.

bilateral donors. The underlying idea of the integrated approach is to scale up the industrialization support programmes, which involves tackling systemic issues. UNIDO's flagship programme initiated in 2014 is called the 'Programme for Country Partnership (PCP)' (see case description below), which is an innovative model for accelerating ISID in member states.

While supporting socially inclusive industrial development, UNIDO also has a strong emphasis at the programmatic level on environmental considerations. This encompasses new green industries, establishing national road maps for greening supply chains, determining benchmarks and indicators to measure e.g. industries' impact towards climate change mitigation (reduction in GHG emissions, adoption of clean technologies, etc.), disseminating and sharing best practices, running clean technology programmes, undertaking various capacity-building exercises and contributing to international forums with the necessary research and expertise.

Another issue that was mentioned in an interview with UNIDO is the role of China within the broader manufacturing picture. Chinese companies are facing higher wages domestically and are looking towards Africa for cheaper labour. Regarding new technologies and innovation, there is a lot of uncertainty in terms of labour implications of new industrial technologies. There are applications of robots in sectors that were previously not possible, for example in textiles. UNIDO is looking at the implications of robots on manufacturing labour for the future.

Capital accumulation

Capital accumulation for larger manufacturing project is not a main area of UNIDO's programmes in terms of supporting credit provision, financial deepening programmes, and fund/facility providing grants and loans, or strengthening capacity of financial institutions. UNIDO has several micro credit programmes addressing the issue of risk perceptions, particularly within its portfolio on youth entrepreneurship and women economic empowerment. For a women's entrepreneurship programme, UNIDO addressed access to finance, working both with women to make bankable proposals and with the banking sector (micro interventions). UNIDO further supports a programme for creating an international investment forum aimed at spurring investment in certain priority sectors.

Internal capabilities of enterprises

UNIDO has a substantial portfolio of enterprise-level support programmes including direct entrepreneurship promotion and SME development and in 2011 the DFID Aid Effectiveness review considered the provision of technical inputs for SMEs to be UNIDO's niche in the multilateral system. The micro-interventions include the provision of management skills and technical support, amongst others with a view of the formalisation of the informal sector. UNIDO has strong technical sectoral expertise for enterprise support including agribusiness and agri-processing, food value chains, energy management systems, sustainable cities and greening manufacturing to name but a few. Moreover, UNIDO advises companies about international trade norms and standards by assisting and upgrading production and processing systems to enhance the quality of local products, in particular through the adoption of improved technologies and helping them to conform to the standards required by international markets.

With regard to environmental matters, enterprise-level support involves the transfer of cleaner production methods and environmentally sound technologies and the implementation of advanced business models. UNIDO's underlying assumption is that there is a huge opportunity for technological leapfrogging in developing countries with environmental benefits. UNIDO further promotes sustainable energy solutions within enterprises to make industries more productive and climate resilient, which in turn promotes green jobs and green growth. This includes the deployment of industrial energy efficiency standards, smart grids based on renewable energy and renewable energy for industrial applications as well as the promotion of climate resilient industries. In the

field of water management, UNIDO focuses on the sustainable use of water resources. This includes capacity building for the industrial sector to improve water productivity, reuse and recycling.

UNIDO also works with large enterprises, particularly for energy (management systems) and environmental projects. For instance, UNIDO is engaging with large steel manufacturers that represent a large source of CO₂ emissions in these countries. The support programmes focus on changing practices in terms of energy consumption and cost savings.

Intermediary business support organisations

At the intermediary level, UNIDO builds capacities of national financial and non-financial institutions and business development service providers to better cater to the needs of SMEs (especially in the youth and women portfolio). UNIDO further supports secondary and vocational training institutions, introduces practical entrepreneurship curricula that particularly targets the development of entrepreneurial skills among young people before they enter the workforce. This is enriched through elements of ICT training.

Higher-level policy and regulatory institutional framework

The national government is typically a counterpart of UNIDO's interventions in setting the higher-level whole-country industrial policy framework. An important determinant of the success of an industrial policy is the macro-level policy making. UNIDO works with governments on policy development at the sectoral level and at the broader strategic industrial policy level. Aligned with the national development agenda and focused on sectors with high growth potential, the integrated programme supports a country in achieving its industrial development goals, accompanied with an approach to accelerate structural transformation. The approach for each country that can be different, which will be adapted to the country context and needs. UNIDO does not touch upon macroeconomic conditions and takes these as given. The integrated approach involves strong level of ownership by governments and UNIDO typically collaborates with the prime minister's office and relevant ministries.

Regarding the strengthening of the regulatory framework where higher-level policy is implemented, UNIDO provides advisory services to improve the business and policy environment for the private sector. UNIDO supports the transformation of enterprises from the informal sector to the formal sector, with a special focus on simplifying and improving access to administrative company registration services. UNIDO builds capacities in both public institutions to formulate trade policies and strategies based on economic and statistical analysis, as well as benchmarking competitive performance at sectoral and product levels and supporting the establishment of trade-related databases such as inventories of technical barriers to trade (TBT). UNIDO supports standards institutions as well as TBT and sanitary and phyto-sanitary (SPS) measures enquiry points through various regional programmes and country projects. UNIDO also supports developing economies in addressing the increasingly important issue of voluntary private standards, with emphasis on the uptake of corporate social responsibility (CSR) standards. UNIDO provides assistance to government institutions on Cleaner Production policy matters, as well as the promotion, adaptation and transfer of environmentally sound technologies and the implementation of advanced business models such as chemical leasing.

Under the promotion of research and evidence-informed policy making, strengthening knowledge and institutions is a prioritized outcome that is elevated over other high-level results. It describes the organization's strategic direction towards strengthening the knowledge base for ISID at the project, programme, country and international levels, as well as the institutional capacity at the technical, policy and normative levels.

Linkages

UNIDO's services for industrialisation include both analytical and technical assistance, particularly for the development of agro-industries focus on adding value to production by strengthening linkages between agriculture, industry and markets related to global value chains. In this respect trade capacity-building constitutes

a key activity. Establishing linkages with value chains equally strengthens the process of formalisation of the informal sector by incorporating them into local value chains. UNIDO seeks to improve industrial energy efficiency by contributing to the transformation of market linkages for energy-efficient products and services. Supporting linkages also refers to the promotion of clusters of (small) enterprises clusters to promote their competitiveness.

UNIDO has Cluster Development Programmes in over a dozen countries in Latin America, Africa and Asia. In India, in 2005 UNIDO implemented pilot activities to explore the impact of cluster development on poverty reduction, focusing on strengthening inter-firm networks for example between poor weavers and small agro-processing units. Activities included supporting the formation of self-help groups (3,000 workers in more than 70 SHGs) organised in a federation of SHGs; the provision of training in dyeing, product costing, pricing, accounting, marketing; the promotion of networks of micro-enterprises; exposure and sales visits to new technologies and the production of value added groups for SHGs and microenterprises; the creation of women-only networks and literacy classes. UNIDO reported that by working together in SHGs, poor cluster actors were able to decrease input costs through bulk purchases, increase quantity and quality of output, develop new markets and obtain higher wages.

UNIDO also works on partnerships with the private sector (with large manufacturers such as Microsoft, Metro, Samsung) and with multiple stakeholders (such as with the Green Industry Platform). Whilst UNIDO's business partnerships are diverse in nature, they can be clustered in four types of partnership: partnerships with shared project implementation, partnerships with business partner as donor, partnerships in which UNIDO has a subsidiary role, and UNIDO initiatives. The latter refers to partnerships which are fundamentally UNIDO frameworks for multi-stakeholder cooperation rather than advisory projects for companies. One such examples is the Green Industry Platform (<http://www.greenindustryplatform.org/>). Public entities - governments, national implementing partners and donors – play a key role in all partnerships.

UNIDO also plays a role in mobilizing investments. UNIDO's programme 'Investment and Technology Promotion Offices (ITPOs⁴⁰)' guide potential investors from their host countries and from developing countries at each stage of the investment cycle, from project identification through appraisal to implementation. In doing so, ITPOs offer a full package of up-to-date information on screened and validated investment opportunities, including manufacturing facilities, and technology supply sources.

Infrastructure

In the framework of trade capacity building, UNIDO supports the [Quality Infrastructure System](#) approach for industrial development, trade competitiveness, efficient use of natural and human resources among others. This integrated approach covers different layers: the governance level (through support to improvement of policy and regulatory frameworks); quality infrastructure institutions (for improved metrology, standardization and accreditation); service providers offering conformity assessments, quality promotion, calibration and verification; enterprises; and consumers. One of the objectives is to improve the logistics for exports involving new infrastructure that is missing or weak in these countries. Examples of technical assistance in energy infrastructure include decentralised off-grid electricity generation, water infrastructure, e.g. dealing with industrial wastewater and developing industrial parks with the idea to attract and facilitate FDI.

⁴⁰ <https://www.unido.org/investment-and-technology-promotion-offices-itpos>

Cases of manufacturing support programmes of UNIDO

Case 1: Programme for Country Partnership (PCP): Ethiopia⁴¹

The PCP is a multi-stakeholder partnership in a target country organised by UNIDO for accelerating inclusive and sustainable industrial development, linking the industrial development efforts of the respective national government, United Nations agencies, development partners, financial institutions, the business sector, academia and civil society. Duration: 2014 – present, total anticipated funding: \$22.76 million USD.

In Ethiopia UNIDO initiated its PCP aligned with the national development agenda, the national industrialization prioritises and focuses on sectors with high growth potential to support Ethiopia in achieving its industrial development goals. It focuses on developing light manufacturing industries, particularly in agro-food processing, textiles and apparel, and leather and leather products. These sectors were chosen due to their prospects for job creation, strong linkages to the agricultural sector, and potential for exports and private sector investment. The PCP also integrates complementary cross-cutting interventions according to government-defined priorities. All PCP components have been included in the Growth and Transformation Plan (GTP II, Ethiopia's central policy document), demonstrating the Government's ownership of the Programme.

The PCP also includes a project which aims to assist in improving employment opportunities for youth and women through SME development and entrepreneurship. The project saw the collaboration with UNCTAD for the development of the National Entrepreneurship Strategy, which identifies youth and women as core priorities, in addition to rural, green and social entrepreneurship.

The PCP brings together actors through a multi-stakeholder platform to coordinate and optimize contributions. A strong national coordination mechanism is required to manage the complex partnerships involved in a PCP. Therefore, a task force is established that brings together key PCP partners under the leadership of the national government. In collaboration with UNIDO, the task force is responsible for overall coordination, prioritizes projects and programmes, and allocates resources for the execution of the PCP. The task force also monitors progress to ensure that expected results are achieved.

UNIDO takes a lead role during the PCP cycle, from the initial country diagnostic, to consultations with different stakeholders and programme development, and throughout implementation. UNIDO provides advisory services to the government on all industry-related issues and facilitates overall PCP coordination. This includes identifying priority industrial sectors or projects, namely those with a strong potential for job creation, increasing exports and attracting foreign direct investment. UNIDO conducts value chain assessments and advises on which interventions are required to advance Inclusive and Sustainable Industrial Development (ISID). During these processes, UNIDO identifies essential partners with a focus on leveraging large-scale public and private finance. Additionally, a multidisciplinary UNIDO team provides technical assistance for the execution of the programme. This includes, among other interventions, skills training programmes by engaging local training providers such as the Training Institute for Commercial Vehicle Drivers, a public-private partnership project to support specialized skills development (5.4 million USD). Furthermore, the team developed industrial energy efficiency projects, and conducting feasibility studies for the establishment of major industrial projects, such as industrial zones.

Feasibility studies for the four large-scale Integrated Agro-Industrial Parks (IAIPs) and associated Rural Transformation Centres (estimated project cost of USD 800 million) have been completed and are under review by different stakeholders. Under the EU-funded Leather Initiative for Sustainable Employment Creation (LISEC) implemented by UNIDO, a feasibility study and a business plan have been finalized for the

⁴¹ <https://www.unido.org/programme-country-partnership/ethiopia>

establishment of a central waste treatment plant in the Modjo Leather City (MLC), at an estimated project cost of USD 60 million.

The progress report 2017 describes growing interest to finance large-scale projects, namely the development of integrated agro-industrial parks (IAIPs) and the Modjo Leather City (MLC), as well as other PCP-ETH initiatives. Government of Ethiopia (GoE) made a contribution of USD 620,000 for the establishment of the industrial park focused on the leather industry and equipped with a wastewater treatment plant. The European Investment Bank (EIB) intends to fund up to 50 per cent of the loan. UNIDO secured funding by the EU entitled 7.8 million as part of the above-mentioned programme for which the EU has earmarked EUR 15 million. Other notable achievements include the enhanced operational efficiency of the Regional Industrial Park Development Corporation through capacity-building support. A new UNIDO project aimed at job creation and addressing capacity-building in the textile sector is accepted for funding by the AICS.

By September 2018, the Regional Industrial Park Development Corporation received 300 company applications for occupancy status in the IAIPs. Seven companies were approved, including five international companies from China, Netherlands, Republic of Korea and Sudan.

An independent review was conducted in 2017⁴² on impact and effectiveness in the three pilot countries (Ethiopia, Senegal and Peru). The key lessons learned include the following:

Encouraging lessons for PCP:

- Mutual commitment: The mutual commitment to the PCP at the highest government level and by the Director General of UNIDO is indispensable and provides a strong foundation for the programme for country partnerships.
- Development partners: Development partners in general welcome the PCPs and are in principle interested to contribute.
- Flagship projects: Having the PCP contribute to a few large-scale government flagship projects - like for example the Modjo Leather City in Ethiopia - which are significantly larger than traditional UNIDO TC projects is a good practice. It gives the PCP a much larger scale compared to traditional country programmes, and signals clear focus and strong visibility.
- UNIDO's role: The PCP in the three pilot countries shows that UNIDO can play a more prominent role with regard to industrial development of a country. UNIDO is a highly trusted and appreciated partner. UNIDO has expanded the list of PCP countries. Ongoing PCP cover Cambodia, Ethiopia, Kyrgyzstan, Morocco, Peru and Senegal.
- UNIDO technical cooperation (TC): UNIDO TC is also seen as highly relevant in PCP countries, but mainly to facilitate large-scale investment and less stand-alone projects.

Challenging lessons for PCP:

- PCP as mechanism to mobilize resources: Winning development partners to participate in the PCP with large-scale resources has proved challenging and more time-consuming than expected by stakeholders.
- Country presence: A strong UNIDO country presence is paramount for the implementation of the PCPs.
- Expectations: National stakeholder expectations vis-à-vis the PCP are high. Clear definition of realistic expectations between the Government and UNIDO in terms of roles and responsibilities is important.

⁴² http://kingzollinger.ch/pdf/Mid-term%20evaluation-report_UNIDO's-PCP.pdf

- Risks: The overall success of PCP is closely associated with the success of the flagship projects. If the very large-scale and complex projects do not succeed, the PCP's are at risk, as are the governments' and UNIDO's reputation.
- Timeline: The development and implementation of a PCP takes considerably more time compared to a standard UNIDO country programme. A five year timeframe to achieve the envisaged large scale development results is so far unrealistic.
- Implementation of large-scale projects: The capacity of UNIDO to support the implementation of large-scale projects, such as the establishment of agro industrial parks, is a challenge. In cases where government funding is not complemented with support from development finance institutions, UNIDO could advise the government identifying additional sources of funding.
- Project alignment: Close alignment of ongoing and new UNIDO TC projects to the PCP priority sectors remains a challenge.
- Private sector: The private sector needs to be much more involved in the PCPs in order to ensure they come fully on board.

Case 2: Industrial Upgrading and Modernization Programme (IUMP)⁴³

IUMP promotes competitiveness and diversification of manufacturing sectors by integrating three types of activities: enabling the business environment, building industry support services and empowering enterprise performance. UNIDO implemented the programme in a number of countries in North Africa, the Middle East, and West, Central and East African sub-regions.

UNIDO's Industrial Upgrading and Modernization Programme (IUMP) has been successfully implemented in several countries in North Africa, the Middle East, and West, Central and East African sub-regions. UNIDO are in the process of expanding this programme to reach Asia, Eastern Europe, the Caucasus and Central Asian countries. The implementation of this programme has succeeded in accelerating growth in industrial sectors, and therefore increased employment opportunities and contributed to overall economic growth.

This programme improves the industrial performance of manufacturing SMEs by strengthening their competitiveness and the business environment. Some of the ways it does this is by providing advice on management and business processes, introducing new technologies, improving access to finance, and advising on how to manage policy challenges.

IUMP's assistance comprises of three levels; enabling the business environment and regulatory frameworks, building capacities of technical and business support institutions, and empowering enterprises to improve industrial performance and competitiveness. This results in a comprehensive and strategic competitiveness and enterprise development approach, which enables developing countries and economies in transition to better integrate into international and local markets.

An important aim of the programme is to increase the capacities of local industries for value-added generation, economic diversification, exports and employment creation. This ties in with UNIDO's central belief that innovation and competition are the key dynamics to take advantage of liberalization and to drive economic growth.

IUMP takes both internal and external factors into account relating to performance of SMEs resulting in an integrated and holistic technical approach, promoting competitiveness and diversification of manufacturing sectors along with improving regulatory frameworks and the business environment, and reinforcing institutional

⁴³ https://www.unido.org/sites/default/files/2013-11/IUMP_Brochure_0.pdf

capacities of technical and business support infrastructure. IUMP considers priority products, sub-sectors and value-chains with high employment and export potential constitute the core of IUMP's integrated response to countries' needs in boosting their industrial competitiveness.



AREAS OF INTERVENTION				
POLICY	REGULATORY FRAMEWORK	COMPETITIVENESS ANALYSIS	MANAGEMENT & MONITORING MECHANISMS	NATIONAL INSTITUTIONAL CAPACITIES
Formulation of industrial upgrading and modernization policies and their integration into national development plans and strategies	Developing and supporting the enhancement of the existing regulatory, and financial frameworks related to the private sector and industrial development	Carrying out competitive positioning (and market opportunity) studies for priority industrial sectors and selected value chains and supporting the implementation of identified actions	Supporting the establishment of programme management, coordination and monitoring mechanisms and setting up a sustainable platform for public-private dialogue on industrial development	Building capacities of ministries and other counterparts involved in IUMP implementation to ensure sustainability of the Programme

IUMP does not operate on a centrally managed programme budget. Various donors have funded the individual country programmes involving the IUMP approach:

Country	Country IUMP programme name	Country partners	Donor	Programme period	Budget
Tunisia	National Upgrading Programme	Ministry of Industry and the Agency for the Promotion of Industry and Innovation	Italian Government	2001 - 2006	4.5 million USD
Senegal	Industrial Upgrading and Modernization Programme in Senegal	National Upgrading Bureau, National Steering Committee, Ministry of Mines and Industry	French Development Agency (AFD)	2004 - 2009	11.9 million Euro
Syria	Industrial Upgrading and Modernization Programme in Syria	Syrian Government	Italian Government	2007 - 2010	2.2 million Euro
Cameroon	Pilot Programme for Industrial Upgrading	Ministry of Economics, Planning and Territory of Cameroon (MINEPAT)	European Union	2009 - 2012	3.6 million Euro
Ivory Coast	Improving the competitiveness of Ivorian enterprises in non-traditional export sectors	Government of Côte d'Ivoire	European Union	2010 - 2015	4.5 million Euro

Cameroon

IUMP implemented a pilot programme in Cameroon for Industrial Upgrading, Standardization and Quality in the textile, agro-industry and wood sectors, funded by the European Union.

UNIDO intervened in multiple areas to succeed in creating an enabling business environment and to advance industrial modernization; policy, regulatory framework, positioning studies, management and monitoring bodies and national institutional capabilities.

UNIDO's method was based on a participatory approach involving key stakeholders from public, private and financial sectors. This allowed the Programme to support Cameroon in examining and improving its institutional frameworks and devising new industrial regulations to enable SME development and enhance quality.

With regards to policy, a National Upgrading Programme was formulated and presented to national stakeholders. Public-private dialogue was also facilitated allowing the validation of the Programme and the design of a roadmap for its implementation. In addition to this, the project supported the formulation of the national quality plan to strengthen the quality infrastructure.

Concerning the regulatory framework, several laws and regulations were recommended to national authorities allowing the establishment of the National Upgrading Office and the Programme Steering Committee. Moreover, a feasibility study was carried out to set up an incentive mechanism for SMEs participating in the Programme.

The programme also carried out two positioning studies for the priority industrial sectors of agro-food and business development services. The results from these studies meant an action plan could be formulated for developing these sectors.

The programme provided programme management, vital technical assistance and coaching activities to ensure the Upgrading Office (technical unit) could be set up, as well as the Steering Committee, Subcontracting and Partnership Exchange (SPX) and the Cameroon standardization body (ANOR).

The programme succeeded in strengthening National Institutional and Ministerial capacities involved in Programme management and implementation, particularly Ministries in charge of Economy (MINEPAT), Industry (MINIMIDT) and SMEs (MINPMEESA).

The programme successfully fulfilled its aims of strengthening the business environment for SMEs and ensured high level national ownership. As a result of this success, the European Union has dedicated an additional €10 million to expand IUMP activities.

7. INTERNATIONAL LABOUR ORGANIZATION (ILO)

ILO stresses ‘decent work’ and the importance of compliance with labour standards in manufacturing programmes, promotion of social security systems and labour protection. Such programmes are carried out via direct support to enterprises and via social dialogue among government, employers, trade union, labour unions and other partners. The Better Works Programme is a key programme with a focus on improving workplace compliance through social dialogue, implementation of national and international labour standards, firm level support and training.

ILO brings together governments, employers and workers of 187 member States and sets policies and implements programmes promoting employment opportunities, labour standards and rights at work. Furthermore, its programmes aim to enhance social protection and strengthen dialogue on work-related issues. ILO’s overarching approach is guided by its so-called ‘Decent Work’ agenda (see box 1). The agenda refers to work that “is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.”

In the past, DFID provided core funding to ILO as well as funding to its programmes. However, in 2011 DFID stopped the core funding after an assessment of ILO (see Multilateral Aid Review 2011⁴⁴). The assessment findings were not positive in terms of ILO’s contribution to DFID objectives; contributing to results, management and accountability. The ILO provided a [detailed response](#) to DFID on the Multilateral Aid Review findings. In 2015-2016 the Multilateral Organization Performance Assessment Network (MOPAN), of which the UK is a member, assessed the ILO⁴⁵ and the findings of the report underscored that the ILO is a highly relevant and improving organisation. DFID continues to fund individual ILO programmes. As at May 2019, DFID’s earmarked contributions to the ILO’s development cooperation programmes amounts to over £ 30 million.

Box 1: ILO and Decent WORK

Decent work sums up the aspirations of people in their working lives. It involves opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.

Building partnerships and promoting the Decent Work Agenda in collaboration with other UN and multilateral agencies is a key strategy to improve decent work outcomes at the national level. Through awareness raising initiatives, research, policy dialogue, technical support and capacity building, the Sectoral Policies Department contributes to the development of tools, materials and know-how for constituents, policy makers and other multilateral agencies to understand and mainstream key decent work issues in specific sectors.

Manufacturing (-related) support approaches of ILO

With regard to the manufacturing sector, ILO has developed several approaches in line with the Decent Work agenda. In terms of employment creation and enterprise development, ILO implements generic entrepreneurship and management development and training (enterprise-level) programmes. The ‘Start and Improve Your

⁴⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/67624/ilo.pdf

⁴⁵ <http://www.mopanonline.org/assessments/ilo2015-16/Mopan%20ILO%20%5Binteractive%5D%20%5Bfinal%5D.pdf>

Business (SIYB)’ programmes help entrepreneurs and would-be entrepreneurs. In addition, ILO implements an extensive programme of international technical assistance and technology promotion for enterprise. Enterprise-level support further includes the establishment of linkages between local manufacturing enterprises and global value chain as one way to improve access to global markets. In particular, ILO analyses value chains and seeks to improve integration (DFID supports of such programmes in Bangladesh: ‘Improving Working Conditions in the Ready-Made Garment Sector’). The ‘Rough Guide to Value Chain Development’ explains in detail ILO’s value chain development approach method⁴⁶.

The Value Chain Development Cycle

The ILO approach consists of five main steps for organizing a value chain initiative:

1. **Sector Selection:** Which sectors should be promoted depends on objectives and target group of the initiative. Sector selection requires a process based on clear criteria including scale
2. **Market System Analysis:** Market System Analysis includes value chain mapping to illustrate complexities of the sector, research consisting of interviews and focus group discussions to understand opportunities and constraints, and a final analysis of findings
3. **Intervention Design:** There are no ‘one-size-fits-all’ approaches to successful pro-poor market facilitation; tailor-made ‘packages’ of interventions need to be built around local market realities to find solutions for remedying bottlenecks in the value chain and its underlying constraints that hinder participation of disadvantaged groups
4. **Implementation:** Sustainable solutions to remedy bottlenecks need to be understood as business- models that will be able to exist once projects or externally funded interventions end. Interventions by private or public actors need to be able to become sustainable, grow in the market system and be driven, replicated and adapted to change by its actors
5. **Monitoring and results measurement:** Value chain and market system development is a continuous process that never ends. A good monitoring and results measurement system, for example based on the DCED measurement Standard⁵, can therefore help to measure the success of implemented interventions and provide feedback on what needs to be done further.

ILO also promotes employment creation in its labour-intensive infrastructure investment and construction programmes. The manufacturing components of these programmes support local employment as much as possible, instead of bringing in machines and foreign labour, which requires additional effort and preparation for involving local manufacturing firms and labourers. There are also various other ILO programmes with regard to investment promotion in the manufacturing sector since complex and unreliable regulations prevent investors to invest. For example, one programme, ‘Enabling Environment for Sustainable Enterprise Development’, ensures that government regulations are simplified and made smarter. Lastly, ILO has some programmes promoting access to finance for manufacturing enterprises, although it is not a finance-focused organisation. Not directly targeted to manufacturing but nonetheless interesting is the Social Finance programme⁴⁷, which develops practical approaches to enable access to finance for excluded groups.

Labour rights and labour standards in global value chains

ILO’s Decent Work agenda addresses the interaction between productivity and labour conditions/standards including social protection. Employment in manufacturing enterprises in developing countries often concern low-quality and low-skilled jobs that offer low wages under poor and unsafe working conditions. The same companies often fall short in terms of productivity, competitiveness and market share. The ILO has long been convinced that, by improving working conditions, safety and skills in SMEs, productivity and profitability can

⁴⁶ https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---ifp_seed/documents/publication/wcms_366005.pdf

⁴⁷ <https://www.ilo.org/empent/areas/social-finance/lang--en/index.htm>

also be improved, creating a win-win scenario that is good for workers, enterprise owner, communities and economies.⁴⁸

ILO has focused programmes ranging from the realization of the fundamental principles and rights at work⁴⁹ to the promotion of social dialogue among governments, employers' and workers' organizations. A complementary area of focus is the promotion of labour rights and responsibilities within global value chains. ILO facilitates companies to improve their compliance with national and international labour standards. In this context, ILO has initiated programmes to support improving working conditions in line with labour standards and social protection codes in dialogue with international companies. This also involves harmonizing how compliance with labour standards is reported to buyers and investors.

ILO provides direct support to local manufacturers to gain access to global markets while meeting the minimal compliance conditions. Many local manufacturing companies, particularly SMEs, do not have the knowledge and do not know how to improve working conditions or how to assess if conditions are in line with national legislation and international labour standards. The latter is a prerequisite for international exports. ILO supports the creation of internal systems to assure international labour standards are backed by a system to supervise their application.

Social dialogue

ILO is also strong in strengthening local employers' associations and local trade unions, and promotes social dialogue by strengthening employers' associations and trade unions and their interactions with other stakeholders. ILO has advanced global dialogue to address the serious shortage of skilled workers faced by the oil and gas sector. ILO promotes decent work in the textiles, clothing, and leather and footwear sector by promoting social dialogue on the main challenges and opportunities in the sector, as well as by building consensus among tripartite constituents on measures to address these challenges and opportunities.

Subsector approach

An important observation is that ILO mostly takes a subsector focus (sectoral approach) in its manufacturing support programmes. The underlying idea is that different subsectors face different realities and need different types of support. For example, ILO developed codes of practice on safety and health in the iron and steel industry, assisting all those involved in the industry to improve safety and health records. ILO has developed a series of Codes of Practice. They are global not legally binding instruments and are not intended to replace the provisions of national laws or regulations, or accepted standards. Codes of Practice can focus on specific economic sectors, or can address particular issues, hazards or health and safety measures. ILO developed codes of practice on safety and health in opencast mines, in shipbuilding and ship repair, in the use of machinery, in agriculture, in the non-ferrous metals industries, in forestry work. Codes of practice set out practical guidelines for public authorities, employers, workers, enterprises, and bodies (such as enterprise safety committees).

National industrial/sector policy framework

A critical success factor in the implementation of manufacturing programmes is whether an overarching national vision on manufacturing is explicit and in place. ILO is working in different sectors in different countries and observes a huge difference between sectors where the government has formulated a vision/national strategy on

⁴⁸ Croucher, R., Stumbitz, B., Quinlan, M., & Vickers, I. (2013). Can better working conditions improve the performance of SMEs? An international literature review. Geneva: International Labour Office.
Accessible via: <https://digitalcommons.ilr.cornell.edu/intl/305/>.

⁴⁹ The realization refers to the ratification of the ILO fundamental Conventions by member states. ILO development [eight ILO Conventions](#) of rights at work recognized as fundamental.

industrial policy and those sectors where it has not. If an overarching vision and sector policy framework is absent, then investors and stakeholders will not take the risk to develop a manufacturing sector, regardless of well-intended firm level support programmes of donors. Otherwise there will be only individual and fragmented projects and low productivity entrepreneurs.

ILO believes that donors, including DFID, should not develop the vision for industrial policy on behalf of national governments. As donors often are not considered as neutral actors, UN organizations could be involved as a convening (neutral) power to facilitate and bring the various stakeholders together. Stakeholders include governmental agencies and ministries, branch organizations and workers that come to the government with demands, etc.

ILO emphasises the importance of revisiting national industrial policy. As the world has become so complex that you need sector-targeted policies and a strong network to make the manufacturing sector successful. While industrial policy is critical, at the same time a bottom-up approach is important in supporting at the enterprise level so that enterprises have their suggestions for a vision ready. In short, manufacturing support is a balancing act between the higher-level strategic framework, the middle/meso level institutional strengthening (intermediary organization, trade unions, and branch organisation) and firm-level support.

New technologies, artificial intelligence and robot/cobots⁵⁰

For its future policy and support programming with regard to manufacturing, ILO is considering the implications of new technologies, artificial intelligence (AI) and robot/cobots. Current global value chains are set up and structured according to an outsourcing model. In past decades, this has implied that instead of investing in technology at the western locations of companies, buyers and brands relocated their production off-shore to low-cost (low tech and low skill) places such as Bangladesh and India⁵¹. However, after recent factory disasters and scandals, and increased trade barriers, international buyers have started to reconsider further outsourcing to those countries, despite efforts to improve compliance monitoring systems. Moreover, a McKinsey report published early 2019 (*Globalization in transition: The future of trade and value chains*⁵²) signals that decisions to locate production in developing countries are driven decreasingly by labour costs, particularly in industries producing labour-intensive goods and services. Today, as presented in the report, only 18 percent of goods trade is based on labour-cost arbitrage, that share has been declining over the last decade.

In the future, it is expected that new technologies and AI may amplify this trend, transforming labour-intensive manufacturing into capital-intensive manufacturing. This shift will have important implications for how low-income countries participate in global value chains. Instead of considering labour cost, location decisions will be based increasingly on proximity to customers.

From an interview with Casper Edmonds of ILO (during the talk on 13 September 2018) it is suggested that the enormous technological advances in artificial intelligence and robot/cobots technology across manufacturing, such as the 3D printing of shoes, enable buyers to ‘re-shore’ their production activities. Today, textile producers in the US develop new robotic t-shirts production technology, with the idea to be competitive at the global market. Another example of such technological advancements is numeric laser cutting that could replacing part of the workforce in firm. The introduction of the new (labour saving) technology will push down prices and harden competition according to the ILO. “An international textile company likely prefers to organise robot-based production in Portugal than a labour-intensive factory in Indonesia because of the proximity and the

⁵⁰ A *cobot* or co-robot (from collaborative robot) is a robot intended to physically interact with humans in a shared workspace.

⁵¹ <https://www.mckinsey.com/featured-insights/innovation-and-growth/globalization-in-transition-the-future-of-trade-and-value-chains>

⁵² <https://www.mckinsey.com/featured-insights/innovation-and-growth/globalization-in-transition-the-future-of-trade-and-value-chains>

political stability of the country.” ILO is already observing – when it comes to negotiating wages – that employers are using this argument to negotiate prices downward. Donors having the intention to promote manufacturing have to consider this effect.

The Chinese investment in industrial robots is growing quickly as well. China is on the verge of an industrial restructuring⁵³ as politically, the government cannot allow comparable job losses to those experienced by European countries and the US a few decades ago. China is investing in cobots and technologies to make sure that some aspects of higher value added production stay in China.

Most low-income countries do not have the means for Research & Development, Science & Technology and innovation that the big brands have, or that some governments of middle-income countries like China and India are making available to branch organizations. The implication is that low income countries only innovate in terms of copying, technology adoption and adaptation.

Cases of manufacturing support programmes of ILO

Case 1: Better Work⁵⁴

The Better Work Programme is an on-going partnership between the International Labour Organization (ILO) and the International Finance Corporation (IFC) and aims to improve labour standards and competitiveness in global value chains in Bangladesh, Cambodia, Egypt, Ethiopia, Haiti, Indonesia, Jordan, Nicaragua and Vietnam. Better Work formally began as an ongoing partnership between the IFC and ILO in July 2009. The total budget for Better Work programmes runs as around \$20m annually, 33% of the budget is sourced from the private sector.

The Better Work program origins are in the ‘Better Factories Cambodia Programme’ of ILO starting in 2001. BFC was hardwired into the USA/Cambodia FTA as a means by which manufacturers looking to benefit from quota provided for in that agreement would demonstrate their compliance to national labour laws and international core labour standards. Following the success of this work ILO looked to replicate positive lessons and experiences in other markets.

Together with IFC it developed the Better Work Programme which was formerly enshrined in cooperation agreement between ILO/IFC in July 2009. Better Work took the key lessons from the BFC experience and developed the interventions to speed up impacts. This included for example more active support to workers and employers to fix compliance problems in the firm through training and advisory work (not just monitoring working conditions and making compliance data available). Each market is different, and some programmes – like Jordan and Haiti – are also linked to trade agreements. Others like Vietnam and Indonesia do not have such incentives. ILO wanted demonstrate that Better Work could operate in these different contexts with the same sort of success. Better work’s focus is in the global garment industry and it is particularly applicable to footwear and textiles. ILO did not expand the programme to take on other supply chains.

Currently, the programme is active in 1,600 factories employing more than 2.2 million workers in Bangladesh, Cambodia, Egypt, Haiti, Indonesia, Jordan, Nicaragua and Vietnam. In the long run, it is envisaged that the programme will be implemented in nine countries, in 2000 factories and will reach 3 million workers. DFID is a development partner and provides co-funding in Bangladesh (£6.6 million) and in Ethiopia (£1.6 million). The

⁵³ China’s capability to restructure its economy from one that depends on low-value manufacturing exports to a knowledge-based one, see [Industrial restructuring in China : an institutional analysis of state-society relations and its policy impacts \(2017\) by Leung Yi-man](#)

⁵⁴ https://www.ilo.org/global/programmes-and-projects/WCMS_084616/lang--de/index.htm

programme brings together all levels of the value chains to improve working conditions and respect of labour rights for workers, and boost the competitiveness of apparel businesses. The targeted value chains include agribusiness and manufacturing industries, such as apparel, construction, and light manufacturing. Better Work focuses on labour intensive industries, in particular manufacturing, having large numbers of vulnerable workers in developing countries. The programme is developing both global tools and country level projects. Although the programme is not ‘manufacturing only’, it is very relevant in terms of working conditions in manufacturing subsectors.

The programme assists factories directly in improving practices based on core ILO labour standards and national labour law. It does this with a strong emphasis on improving worker-management cooperation, working conditions and social dialogue. Enhancing respect for labour standards helps enterprises meet the social compliance demands of global buyers, improves conditions for workers, and helps firms become more competitive by increasing productivity and quality. The programme is advising factories directly to improve working conditions:

- Providing practical assistance to factories to help workers and employers in the workplace to engage and cooperate effectively, to self-diagnose and to fix problems themselves. Through IFC-developed trade financing packages, the programme provides financial incentives in the form of preferential interest rates to factories making improvements.
- Harnessing the commercial influence of leading brands and retailers. ILO provides them with compliance assessments reports of their suppliers and in turn, asks them commit to using their commercial influence to encourage needed improvements. ILO also gets brands to stop duplicative monitoring and due diligence programmes, greatly reducing associated costs to factories.
- Publicly disclosing serious non-compliances. The results are disclosed after fair notice is given to the firms to make the required improvements. Reputation management becomes a strong incentive for improvement.
- Demonstrating the business benefits of decent work through independent research based on Better Works unique data sets. An impact assessment on how Better Work is improving garment workers’ lives and boosting factory competitiveness by Tufts University is an example of such independent research (see reference below).

To achieve sustainability it is critical to ensure that national institutions in the countries in which ILO works are capable to govern labour markets in a more robust way. Better Work aspires to build the capacity of statutory institutions and regulators, workers and manufacturer’s associations to play a more assertive role in governing the labour market. This means better laws and policies and stronger institutions to implement them.

In the garment subsector, for instance, the Better Work programme is improving working conditions and respect for workers’ labour rights, and boosting the competitiveness of apparel businesses. Because of their participation with Better Work, factories have steadily improved compliance with ILO core labour standards and national legislation covering compensation, contracts, occupational safety and health and working time. This has significantly improved working conditions and, at the same time enhanced factories’ productivity and profitability. Better Work implements a two-fold strategy to promote compliance with national law and international core labour standards in global garment and footwear supply chains and bolster a more stable and profitability sector that can influence supply chains beyond the garment industry.

Impact /Effectiveness

As a result of their participation with Better Work, factories have steadily improved compliance with ILO core labour standards and national legislation covering compensation, contracts, occupational safety and health and

working time. This has significantly improved working conditions and, at the same time enhanced factories' productivity and profitability.

The Better Work Programme commissioned Tufts University to conduct an independent impact assessment surveying 15,000 survey responses from garment workers and 2,000 responses from factory managers in Haiti, Indonesia, Jordan, Nicaragua and Vietnam. The report⁵⁵ demonstrates the causal effect of the Better Work programme on a wide range of working conditions in garment factories:

- Preventing abusive practices (forced labour, verbal abuse, sexual harassment)
- Curbing excessive overtime
- Closing the gender pay gap

Better Work's impact on firm performance:

- Productivity Supervisory Skills Training (SST), particularly among female supervisors, increases productivity of the supervised workforce in factories by 22 per cent.
- Factories experience a rise in profitability (measured as the ratio of total revenue versus total costs) due to their participation in the programme.

Research and data

Internally, Better Work continuously collects factory-level compliance data in each country programme as part of its assessment services. Better Work staff conduct yearly unannounced factory assessments based on a questionnaire of approximately 250 questions structured in 8 clusters and 38 compliance points. It also collects data based on advisory and training activities in factories. This internal data is stored and curated with systems developed by Better Work.

ILO also engaged independent research partners to collect survey data from worker and managers for the purpose of long-term impact measurement. From 2010-2016 this was done on a systematic basis partnering with Tufts University to design, collect, and analyse data. From 2016 to present, ILO has continued data collection for impact assessment purposes on a project-specific basis, rather than across all country programmes. Beginning in mid-2019, consistent worker-level data collection will re-launch across country programmes using a revised survey methodology and shorter survey instrument. Most impact assessment data is stored in anonymized format with our primary research partner at Tufts University. For specific projects, impact assessment data is stored on Better Work systems.

Open access initiatives: The Better Work Transparency Portal⁵⁶ provides a curated and abbreviated view of compliance assessment data. An online platform for sharing impact assessment survey data has been under joint development with Tufts-World Bank for several years to address anonymization and data protection challenges; as of mid-2019 a beta version of this portal is expected to be available. Researchers interested to work with either Better Work-generated data or impact assessment data collected externally are able to submit their request and proposal for data access to research@betterwork.org.

Case 2: The Lab-I (Market Systems Development for Decent Work)⁵⁷

The Lab-I is a three-year ILO project carried out in the period 2014 to 2017. The Lab promotes a systemic approach to working in value chains and seeks to identify and work on the root causes of why sectors are not currently producing more and better jobs for the poor. The project budget was 2.8 million Swiss francs (2.1 million GBP).

⁵⁵ <https://betterwork.org/blog/portfolio/impact-assessment/>

⁵⁶ <https://portal.betterwork.org/transparency>

⁵⁷ https://www.ilo.org/empent/Projects/the-lab/WCMS_326500/lang-en/index.htm

The Lab-1 generates knowledge on how a market systems approach can lead to sustainable decent work outcomes, at scale, and on how to measure and maximise labour market outcomes while working in value chains and sectors. The project aims to advance knowledge on (i) evidence of the poverty reduction impact of work in value chains, focusing on the number and quality of jobs created; (ii) how working conditions can be improved through intervening in value chains; (iii) how to best select sectors to intervene in to create more and long-lasting employment in future, particularly where a ‘business argument’ can be made for improving working conditions; and (iv) how to transfer capacity for facilitation to national-level institutions. An evaluation of programme was published out in August 2017.⁵⁸

The Lab-1 promotes a systemic approach to working in value chains. This approach takes the value chain as the centre of a market system, where the core exchange of products and services is influenced by an array of players, roles, rules and relationships. Projects seek to identify and work on the root causes, not just the symptoms, of why sectors are not currently producing more and better jobs for the poor - intervening to build the incentives and capacity of key players in the system to uphold behaviour change in the long term.

The Lab-1 also supports the use of the so-called ‘DCED Standard for Results Measurement’, developed by the Donor Committee for Enterprise Development (DCED). This standard is a popular framework for enhancing the quality of monitoring and evaluation. This allows projects to build a system capable of ‘proving’ impact, particularly on the end-goal of job quality and quantity in a way that balances rigor with practicality. At the same time it provides the basis of a system to ‘improve’ impact that can monitor changes in incentives and capacity and zero-in on the ownership and sustainability of change.

The approach uses solid analysis to first select high potential sectors and then better understand key market constraints in these sectors to lay the foundation for targeted implementation. The Guidelines for Value Chain Selection, the result of a joint effort between GIZ and the ILO, offer a holistic and structured approach to value chain selection. The guidelines integrate economic, environmental, social and institutional criteria. The subsequent project interventions are designed to address the root causes of market constraints and incentivise private businesses and government organisations to lead interventions.

The Lab-1 draws on a global network of practitioners in market systems and value chain development and is run by a team with experience of managing large multi-sector market systems programmes and taking projects through successful DCED Standard audits.

Results achieved

- 20 Markets analysed in 15 countries, such as construction, garments, tourism, and agricultural commodities.
- 1/3 of ILO’s portfolio of value chain development projects requested and received support from the Lab.
- USD 30 million value of active ILO projects which have used Lab support to enhance sector selection, market analyses and/or project design.
- 4 rigorous evaluations completed to unpack the jobs impact for projects in Zambia, Timor-Leste, Rwanda and Cambodia.
- 5 Projects supported by the Lab that use the DCED Results Measurement Standard to actively collect decision-useful data to improve and prove program results.
- 450+ Donors and project staff trained on market systems or results measurement.

⁵⁸ See evaluation: https://www.ilo.org/eval/Evaluationreports/WCMS_575533/lang--en/index.htm

- 9 keynote presentations and global webinars that have shared Lab research with practitioner networks like the Building Effective and Accessible Markets (BEAM)⁵⁹, DCED and Aspen Network of Development Entrepreneurs (ANDE)⁶⁰.

Subsector insights from Lab-1

In Kyrgyzstan, the Lab-1 collaborated with UNIDO's Global Quality Standards Programme to identify sub-sectors and products with the best potential for market development via export promotion. Overall, apples and apricots were found to hold greater potential than other sub-sectors, with the exception of apricots scoring slightly lower than potatoes in Osh. As the two sub-sectors share many of the same market players, the project could easily design interventions that support the development of both apples and apricots – which may also have positive externalities across other orchard fruits as well.

In Mozambique, Zambia and Rwanda, the Lab-1 project has completed market systems analyses on the building construction sectors. Through these analyses, a number of commonalities have cropped up related to sector structure; constraints that limit market growth, worker development and business growth; and opportunities for project implementation. The key lessons distilled from these analyses have been synthesised in this brief to help development practitioners better understand the sector and its opportunities through a market systems analysis lens.

Regarding the efficiency of Lab-1, the programme has been able to effectively embed itself within the wider donor community pursuing a decent work and employment creation agenda through a market systems development approach. ILO is now taking a more systemic approach in the delivery of Lab-2. This will involve analysing the constraints that inhibit key actors' ability to adopt systemic approaches to creating decent work, and collaboratively designing interventions that help alleviate these constraints. A robust M&E System is acknowledged to be crucial to drive evidence-based learning and adaptation as it allows projects to be able to monitor their progress, determine strategy and assess trajectories towards the intended impact.

Case 3: Sustaining Competitive and Responsible Enterprises (SCORE)⁶¹

Sustaining Competitive and Responsible Enterprises (SCORE) is a global ILO programme that improves productivity and working conditions in small and medium enterprises (SMEs), 80% in manufacturing. SCORE training combines practical classroom training with in-factory consulting, demonstrates best international practices in the manufacturing and service sectors and helps SMEs participate in global supply chains. In several SCORE countries, national partners and institutions have taken up and are supporting SCORE Training. The ongoing programme started 2009.

The ILO is assisting government agencies, training providers, industry associations and trade unions in emerging economies in Africa, Asia and Latin America to offer SCORE Training to enterprises. There is also a focus on developing innovative partnerships between the ILO, multinationals, lead buyers and brand consortiums, to encourage the integration of SCORE Training in supplier development strategies. The SCORE Programme is managed by a global team based in ILO Country Offices and Headquarters, supported by the Governments of Switzerland and Norway. The SCORE programme is funded by the Swiss State Secretariat for Economic Affairs (SECO) and the Norwegian Agency for Development Cooperation (NORAD). For Phase 1 (2009-2013) the budget was 8 million USD, for Phase 2 (2014-2017) 19.5 million USD, and for Phase 3 (2017-2021) 19 million USD. The total 46.5 million USD was a 50-50% split between SECO and NORAD.

⁵⁹ <https://beamexchange.org/>

⁶⁰ <https://www.andeglobal.org/>

⁶¹ https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_607488.pdf

Since inception in 2009, the SCORE Programme has considerably increased its global outreach; 1,884 enterprises and 16,600 workers and managers in 23 countries have participated in SCORE Training today. These firms employ over 346,400 workers. Several impact observations are worth mentioning.

In many countries, partner organizations are funding SCORE Training

In China, pilot interventions with ILO and the Chinese State Administration for Work Safety (SAWS) resulted in the Huzhou Administration of Work Safety Bureau to adopt the SCORE Training (Workplace Cooperation and Occupational Health and Safety) methodology and deliver it to 400 enterprises through 100 new SCORE Trainers. This was entirely financed by the Huzhou Administration and will for a basis for a new implementation agreement with the new Ministry of Emergency Management (MEM) to further scale SCORE Training within the occupational safety and health administration of the Chinese government.

In India, the SCORE Training methodology has been embedded in the public-funded Lean Manufacturing Competitiveness Scheme (LMCS). This sets the stage for a national scale up of SCORE Training methods in LMCS once the new phase of LMCS is approved by Cabinet of the Government of India. In preparation, the SCORE Trainers have formed an association to promote and coordinate SCORE Training.

In Indonesia, the Business Export Development Organization (BEDO) is now promoting, and delivering fully independent SCORE Training. They have successfully raised USD 180,000 from the Sampoerna Foundation to finance SCORE Training. Additionally, the Society for Automotive Indonesia (SOI) has mobilized USD 80,000 to deliver SCORE training to 10 enterprises. Finally, the Parahyangan University is independently delivering SCORE training with their own budgets in West Java.

In Peru, two ministries, Ministry of Labour and Employment Promotion and the Ministry of Production have embraced SCORE Training and are providing funds (USD 10,000 and USD 60,000 respectively) to support SCORE activities which are being mainstreamed into their SME support programmes.

In Vietnam, Handicraft and Woodworkers Association (HAWA) and Binh Duong Furniture Association (BIFA) since 2018, have delivered SCORE Training in a fully independent manner reaching cost recovery rates of 70%. The Dong Nai College of High Technology has embedded elements of SCORE Training into the curriculum of TVET students and delivered the new training to 501 students without any ILO funding support.

In Myanmar, 55 enterprises have been trained with 100% cost recover from SME fees. The strategy is to build capacity of SCORE Trainers to sell SCORE Training to SMEs without any funding support from ILO (zero subsidy), thus more firmly embedding SCORE Training into a purely market-based approach.

In Bolivia, the Confederation of Employers of Bolivia (CEPF) have trained 107 SMEs and reached 40% cost recovery. In Colombia, the Association of Small and Medium Enterprises (ACOP) has embedded elements of SCORE Training into classroom training which has been delivered to 41 SMEs.

In Ghana, the two key implementation partners, Sekondi Takoradi Chamber of Commerce and Industry (STCCI) and the SCORE Training Solutions Ghana (STSG) are delivering SCORE Training with about 50% cost recovery.

ILO SCORE Programme influences existing SME training programmes

To broaden its outreach and impact, the SCORE Programme also provides assistance to existing training programmes run by partner organizations. By sharing good practices, organizing pilot trainings and providing training materials and tools, the programmes influences partners to take up, upgrade and embed parts of SCORE Training into their existing training programmes. Examples include partners that only have the resources to

provide classroom training without consulting, partners that incorporate specific training contents they are currently lacking, or partners that request assistance in training quality assurance or M&E and adopt some of the tools developed by the SCORE Programme. By influencing these existing programmes, the SCORE Programme has been able to expand its outreach significantly: 4,905 staff of 2,035 enterprises have participated in SME training programmes offered by partners and influenced by ILO's SCORE Training methodology (referred to in the project document as 'enterprises indirectly trained').

More buyers are aware of SCORE Training as a supply chain development tool

The SCORE Programme has made significant inroads in making "lead buyers" in global supply chains aware of the SCORE Training as a tool to build capacity of their suppliers and improve compliance with corporate social responsibility standards. Inditex has allocated funds to sponsor SCORE Training for their suppliers in China and Turkey. The Ethical Trading Initiative-United Kingdom (ETI-UK), mobilized German development funds (Euro 200,000) to offer SCORE Training to suppliers of their member brands in China. Under that initiative, 15 suppliers of 7 brands have received SCORE Training and case studies promoting SCORE Training were developed and promoted on the ETI-UK website.

Impact data shows promising results and insights for learning

The SCORE Programme continues to generate evidence of the impact of SCORE Training on the SMEs who participate. In Peru, an impact assessment study was commissioned to study the impact of SCORE Training on 63 SMEs over the course of three years. 53 firms have reported in the second year of the assessment. Findings show that the majority of firms report significant increases in productivity and quality control (less defects) and 30-40 report significant reductions in absenteeism rates and work injuries. All firms reported improved communication between workers and managers with workers participating in regular daily meetings. Data concerning job creation shows that net employment for all firms across the world benefited from SCORE Training during the time of the training increased by 4,291 jobs (8,901 jobs increased – 4,682 job decreased). During the same time frame, temporary jobs and contract workers net decreased by 8,695 (4,157 increase – 12,852 decrease).

Strong partnerships with Better Work, OECD and ITC-Turin

The SCORE Programme and Better Work have developed a strategy to deepen and expand their impact by leveraging synergies and complementarities between the two programmes. The strategy is to improve service provision, buyer engagement, research, policy influencing, and operational collaboration. The partnership involves both global and country-level components, coordinated by a joint team. In Vietnam, Indonesia and Ethiopia, the SCORE Programme now works closely with the Better Work programme on different initiatives.

As part of a strategy to share more lessons and findings on SME Productivity with policy makers and ministries, the SCORE Programme developed the course "SME Productivity: a course for policy makers", with the OECD, and ITC Turin. The course focuses on expanding the skills and knowledge of policy makers and practitioners to support the development of effective interventions on SME productivity and working conditions. The training workshop was organized in Ghana in September, Vietnam in October and in Turin in December 2018, resulting in new partnerships with SME agencies and other industry players.

ANALYSIS OF DONOR APPROACHES

This report summarizes manufacturing support strategies and approaches of seven donor agencies and MOs, complemented by case studies of relevant programmes and projects. The descriptions enable the identification of findings in terms of patterns and trends in other donors' strategies and approaches, which may provide DFID with reflections and ideas for the formulation of its future support strategy towards manufacturing. Comparing descriptions of the seven donors and MOs show a number of similarities as well as differences and nuances. Moreover, the analysis reveals several emerging trends and novel/original insights which could be of interest for DFID manufacturing support programmes.

Overall, the donors work in a broad range of areas. While promoting agricultural productivity for instance is an explicit goal in the strategies of most donors and MOs, there is a much less explicit framing of 'manufacturing' in terms of an overall programme focus, explicit promotion targets and well-defined support approaches⁶². JICA and UNIDO have the most explicit and well-developed strategies for manufacturing support within their private sector development strategies. In most cases however, donors and MOs implement many fragmented and implicit activities within programmes supporting manufacturing along with generic private sector development. At the same time, the promotion of the manufacturing sector has become more explicit and prominent in recent years. The donors and MOs have introduced original approaches towards manufacturing and are generating lessons learned that present relevant suggestions and ideas for DFID's manufacturing strategy.

Further exploring the types of support towards manufacturing, donors and MOs provide direct financial assistance for capital accumulation (credit programmes⁶³, trust funds and FDI), and non-financial assistance to the manufacturing enterprises strengthening the internal capabilities of enterprises (management, technology) on the one hand. On the other, they indirectly support manufacturing enterprises by improvement of the external business and institutional context of firms, which includes the development of higher-level policy and regulatory institutional framework, infrastructure and energy, intermediary business support organisations and business and PPP linkages. Table 3 presents the various support approaches organized in accordance the direct and indirect support approaches.

The table reveals that while donors largely lack overarching manufacturing strategies, each donor employs a variety of instruments to foster manufacturing with different areas of emphasis:

USAID stresses mutually beneficial partnerships within the private sector, which is in line with the African Growth and Opportunity Act (AGOA). Promoting manufacturing is not an explicit goal of USAID but many of its programmes have elements that support manufacturing. The case 'US Trade and Investment Hub' and the transaction facilitation might be of interest for DFID's 'Invest Africa' programme. The support for manufacturers to raise ability to meet exporting needs is essential.

JICA is one of the donors that is much involved in manufacturing. JICA stresses support for manufacturers to raise overall productivity by improving the management and (quality) capability of firms via Japanese business concepts such as *kaizen* (continuous improvement). Manufacturing is supported via strengthening the competitiveness of SMEs and through trade and investment promotion programmes. The Japanese Kaizen concept may deviate from DFID's analysis on importance of FDI.

⁶² Data on the impact and effectiveness of the manufacturing support programmes is not readily available. In fact, all donors struggle with the issue of attribution in measuring and assessing successes and failures, because explicit manufacturing promotion indicators are rarely defined and reported on.

⁶³ Microcredit for smallholders and farmers is not included in this analysis.

GIZ does not have a specific focus on manufacturing within its overarching strategy but does conduct a range of manufacturing support services within its work on economic development and employment. The agency does have, among other programmes, explicit manufacturing programmes involving measures to address climate change and the greening of industrial production. GIZ aims to establish environmentally-friendly and socially sustainable industrial practices. It supports cooperation with large multinational companies. GIZ supports industrial policy making by giving governments the tools and data to make decisions.

DGIS combines trade and aid in its development approach; low- and middle-income countries are not only recipients of aid but are expected to become trade partners. While the agency does not have a manufacturing support strategy, the Dutch government encourages investment and trade activities in these countries via SME development, Corporate Social Responsibility in global value chains and innovative financing and investment.

IFC is the largest global development institution focused exclusively on the private sector in developing countries. It invests in manufacturing to promote competitive industries and higher incomes through the transfer of technology, innovation and skills. IFC is a leading mobilizer of third-party resources for projects, operating on a commercial basis and investing exclusively in for-profit projects in developing countries. Its financial products enable companies to manage risk and expand their access to foreign and domestic capital markets. Kenya trust support – good example of where capital and TA are deployed together.

UNIDO's mandate is to promote and accelerate inclusive and sustainable industrial development (ISID). It has developed an integrated approach toward manufacturing, ranging from specialised technical support assistance to higher level industrial policy and regulatory framework. UNIDO also supports hard infrastructure, skills and soft infrastructure, technology and innovation systems, technical assistance to enterprises, and access to finance and market/value chains. The programmes for country partnership, including the development of industrial strategy, is an example of a comprehensive approach towards manufacturing support.

ILO stresses 'decent work' and the importance of compliance with labour standards in manufacturing programmes, including social security systems and labour protection. Such programmes are carried out via direct support to enterprises and via dialogue among government, employers, trade union, labour unions and other partners. The better works – key programme with a focus on socially responsible manufacturing – entails dialogue, influence the law, firm level support, and exposure of poor performing firms.

(N.B.: The seven donors and MOs do not include bilateral development finance institutions (DFIs). The availability of capital accumulation opportunities for manufacturing is possibly understated.)

Table 3: Manufacturing support approaches  : Substantial support activities  : Less substantial support activities  : No manufacturing(-related) support

		Provision of direct financial and non-financial assistance to the firms		Improvement of the external business and institutional context of firms.								
		Capital accumulation for manufacturing, not including smallholders and farmers ⁶⁴		Internal capabilities of enterprises		Intermediary business support organisations		Higher-level policy and regulatory institutional framework		Linkages		Infrastructure and energy
USAID		Mobilises private financing (FDI) through guarantees		Education and training of entrepreneurs and workers		The promotion of business and export services		Generic legal and regulatory framework for the private sector		Promoting two-way trade, markets for US goods and public-private partnerships.		Roads, bridges, water supply, energy grids. Some renewable energy projects.
JICA		n.a.		Strengthening management and production quality capabilities		Trade and export promotion associations and BDS including private consultants		Industrial policies and streamlining business regulatory framework		Business matching providing information about foreign markets.		Special economic zones and industrial parks
GIZ		n.a.		Awareness raising about green economic development and industry 4.0		n.a.		Industrial policy and high-level economic policy advice for economic growth		Cooperation with German business. Global value chains of agricultural products		Greening of industrial parks and sustainable industrial areas, renewable energy
DGIS		Development-related investment in trade with developing countries		n.a.		n.a.		Promotion of good business climate, legislation and regulatory framework		Various mechanisms to link Dutch and overseas partners in Dutch top sectors		Involved in multi-donor finance for infrastructure development
IFC/WB		Finance/investment programmes for-profit projects blended with concessional funds		n.a.		n.a.		Verification of higher-level policy and regulatory framework		Most projects targeted at Agribusiness Value Chains		Finance to private sector building transport infrastr., electricity and SEZs
UNIDO		Investment and Technology Promotion Offices (ITPOs)		Management skills and technology (cleaner production), trade norms and standards		Integrated approach includes business development services and trade associations		Industrial integrated policy framework focusing on potential high-growth sectors		Agricultural/manuf. global value chains, as well as enterprise clustering		Infrastructure for imports and exports. Energy infrastructure.
ILO		n.a.		Technology, labour rights, safety labour conditions/compliance		Social dialogue with employers' and trade associations on labour rights and safety		Industrial policy and enforcement mechanisms for labour standards		Linking local manufacturing enterprises and global value chains		n.a.
DFID		DFID incorporates a finance component in more than half of its programmes.		Provision of tailored TA to promote technology, quality standards of manufacturing		n.a.		Improving the generic business climate, however, not incl. industrial policies.		Mostly concerns the agricultural sector value chains. Only few UK collaborations		SEZs, roads and energy for broader economic development.

⁶⁴ The analysis does not include bilateral development finance institutions (DFIs). Analysis of DFIs' approaches to manufacturing is being undertaken by CDC.

Key manufacturing support approaches

In further exploring the key trends in manufacturing support approaches, Table 4 presents the extent to which the seven donors are involved in the various approaches, in order of importance.

Table 4: Support activities specifically targeting manufacturing, in order of importance

Types of manufacturing support	# of donors providing		
	Substantial support	Less substantial support	No support
Higher-level policy and regulatory institutional frameworks	5	2	0
Internal capabilities of enterprises	3	2	2
Linkages	3	4	0
Infrastructure and energy	2	4	1
Intermediary business support organisations	1	3	3
Capital accumulation for manufacturing	1	2	4

Most of the donors provide substantial support for the development of higher-level policy and the regulatory institutional frameworks. On one hand, donors increasingly stress the importance of (re-introducing) industrial policies and prioritizing high potential manufacturing subsectors. On the other hand, programmes support more generic business climate improvements for private sector development and the associated administrative regulatory framework. Improving the business climate can include capacity building of government institutions in terms of the enforcement of legal requirements such as quality inspections and labour regulations.

Strengthening the internal capabilities of manufacturing enterprises is an important activity, which is often not exclusively geared toward manufacturing. This refers to providing education and training for entrepreneurs and workers with a view to strengthening management and production quality capabilities. Areas for training may include awareness raising about green economic development, cleaner production methods, trade norms and standards, labour rights, safety practices and compliance with labour standards.

Donors have a substantial number of programmes to establish linkages between public and private actors and actors within local and global value chains, which involved agricultural sector as well as high quality manufactured good in global value chains. Enterprise clustering is an essential element for some donors. Increasingly donors include mechanisms to link business partners from their countries to overseas partners in developing countries. USAID and DGIS have an explicit agenda to support trade and business development, including manufacturing, for opening markets to American and Dutch companies, respectively. The underlying idea is to support the development process from being aid partners, via transitional partners towards becoming trade partners.

Supporting the development of infrastructure is considered critical in supporting manufacturing, including the development of transport, special economic zones (SEZs) and industrial parks, water and energy infrastructure as well as renewable energy projects. GIZ focuses on the greening of industrial parks. Infrastructure development is relatively expensive, and consequently agencies team up with other donors and the World Bank to establish multi-donor finance mechanisms for infrastructure development.

The support to intermediary business support organisations is to a lower degree included in many programmes. This concerns the strengthening of intermediary organisations, trade associations, employers' associations, labour unions and BDS including private consultants. ILO in particular facilitates social dialogue with employers' and trade associations on labour rights and safety issues.

Capital accumulation specifically targeted to manufacturing is the area of least importance to donors in Table 4, although many donors have micro-credit and finance programmes for smallholders and farmers. (N.B.: It is important to note that the IMC analysis does not include bilateral development finance institutions (DFIs) such as the Entrepreneurial Development Bank (FMO) and Kreditanstalt für Wiederaufbau (KfW)).

Enterprise size and focus

Comparing the profiles and activities of the donors and MOs, a first finding of this analysis refers to the categories of types and size of the targeted manufacturing enterprises. Different categories imply different needs, growth and export potential, development impact and so forth. Three broad categories emerge among manufacturing programmes of the donors and MOs, which also the case within DFID programmes⁶⁵.

1. **Informal agro-processing:** The first category concerns manufacturing in agriculture-related and food processing in local value chains, also referred to as agro-processing, with a view to servicing local markets and assuring food security while eradicating poverty. Manufacturing support in this category may involve technology and financial support to smallholders and farmers, often in the informal sector, to provide additional income generating activities.
2. **Missing middle SMEs:** The second category is SMEs, referring to the so-called 'missing middle'⁶⁶ of SMEs in many of these contexts in developing countries. In most economies, SMEs (10 - 250 workers) are the drivers of new job creation, innovation, and overall economic growth⁶⁷. However, compared to advanced economies, the relative share of these companies is typically small in developing countries, whereas the informal sector including micro companies is very large while there are typically only a few large companies. The relative absence is referred to as the missing middle and it is within this segment that there may be good opportunities for prosperity to be created. However, going formal is considered too costly and complex therefore many local entrepreneurs do not see the value in it, held back by complex and unstable regulatory climates and poor access to inputs. This is also reflected in support approaches such as credit and financial support programmes; SMEs are considered too big for microfinance institutions, and too small and too risky for traditional financiers. The key challenge being converting a small firm into a medium size firm. It is worth noting that only a few support programmes aim at upgrading micro and small enterprises toward SMEs and larger enterprises. Although several donor and MOs programmes target this target group, the phenomenon of the missing middle is persistent in developing countries.⁶⁸
3. **Formal manufacturing:** The last category concerns programmes promoting manufacturing in more advanced industrial settings in developing countries, such as in SEZs or industrial parks. Typically, it concerns formally established enterprises, production companies and units integrated in global value chains that produce high quality products for both export and domestic markets. These support programmes mainly focus on technology, productivity improving interventions, labour and quality standards, as well as on the

⁶⁵ See narrative report Activity A of the portfolio review.

⁶⁶ <https://www.youtube.com/watch?v=mqWPcCLG6Vk>

⁶⁷ <https://nextbillion.net/the-missing-middle/>

⁶⁸ Alibhai, S., Bell, S., Conner, G. 2017. What's Happening in the Missing Middle? : Lessons from Financing SMEs. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/26324>

enabling infrastructure, industrial parks, institutional environment and investment climate. The latter is particularly critical for manufacturing enterprises; a higher-level policy and stable regulatory framework provide the required trust for long-term investment, which are typically substantial in manufacturing operations. In this respect, several donors include finance programmes for high-cost large industrial and production plants. These programmes are not to be confused with micro-credit programmes for the informal sectors.

Societal aspects of manufacturing

Regarding cross-cutting societal aspects such as gender, youth, environment (climate change) and labour conditions, all donors now refer to the necessary principle of inclusivity within economic growth. While GIZ is at the forefront of donors in terms of green industrial promotion and ILO focuses on enhancing labour conditions and decent work for all, equity-oriented approaches to advancing gender equality, improving youth employment opportunities or encouraging pro-poor growth are commonly embedded as targets within activities rather than as primary objectives. Inclusive growth considerations are mainstreamed within strategies and programming although the extent to which this results in systemic changes that improve outcomes for marginalised and excluded groups is unclear and is beyond the scope of this analysis.

Evolution of manufacturing support

The seven donor agencies and MOs continue to refine their manufacturing support strategies, based on changing market conditions and opportunities, emerging technologies, lessons learned about effective approaches and other political and contextual factors. For example, industrial policy has gained renewed focus on the agenda for GIZ because the perceived failures of a free market approach to development have led to an increased demand for support in crafting industrial policies that promote a movement into more sophisticated manufacturing activities with greater value addition. This return to a focus on industrial policy has evolved to incorporate an explicit strategy for ‘greening’ of economic development in order to promote more sustainable economic growth.

UNIDO has also incorporated learnings from past efforts to have a more coherent approach to promoting industrial development in member states. In the 1990s and early 2000s, UNIDO mostly implemented programmes with a sectoral focus. Today, UNIDO is providing an increasingly integrated set of services rather than single interventions, involving strong ownership by governments. The underlying logic of the integrated approach is to scale up industrialisation support programmes, which involves tackling systemic issues. UNIDO’s flagship programme over the past four years, the ‘Programme for Country Partnership (PCP)’ is underpinned by this collaborative and holistic approach.

Emerging trends and novel/original insights

Global trends are critical in the future planning of manufacturing strategies. For instance, donors are increasingly aware of the changing conditions in the Chinese economy, including rising wages, which pose a potential opportunity for low-income countries in Africa and Asia. If the manufacturing jobs that are moving within China were to shift outside of China, low-income countries in Africa and Asia could position themselves to attract these jobs. The challenge for donors is to support developing countries in such a way that they are able to grasp new opportunities for promoting the manufacturing sector.

Rodrik (2015) flagged another trends described as ‘premature de-industrialisation’. Latin American and African countries are running out of industrialization opportunities sooner and at much lower levels of income compared to the experience of early industrializers. The evidence suggests both globalization and labour-saving technological progress in manufacturing have been behind these developments. Premature de-industrialization

has potentially significant economic and political implications. This phenomenon creates particular opportunities for donors in terms of how they shape their future ambitions and ways of support.

Donors see the need within manufacturing to allocating resources in a responsible way. With regard to societal issues, ‘responsible manufacturing’ or equivalent concepts are gaining substantial ground in the sectoral and industrial strategies. In particular, donors include a combination of approaches for strengthening labour conditions in manufacturing sector and for addressing environmental issues including climate change.

The importance of innovation for productivity growth in manufacturing sectors is increasingly recognized by donors, as innovation is fundamental to catch up with international product quality standards and production efficiency. It is worth noting that innovation is mostly associated with putting into practice highly technological and radical inventions and breakthroughs involving significant investment in Research and Development (R&D). However, innovation manifests itself differently in developing countries, through incremental adoption and adaptation or new combinations of existing technologies. GIZ’s embrace of digital solutions through its Industry 4.0 approach is one way to support enterprises and promote economic development.

Likewise, donors recognise that innovation is not inherently positive and that there is widespread uncertainty concerning labour implications of new industrial technologies, and the growing use of robots in particular. There are more applications of robots in sectors that were previously not possible, for example in textiles. Currently, these are very small-scale applications. Robots are not an immediate threat to manufacturing jobs in developing countries, where wages remain relatively low. UNIDO is one institution that is looking at the implications of robots on manufacturing labour for the future.

Investment remains a core ingredient for supporting manufacturing firms, which are typically more capital-intensive than the agriculture and service sectors.⁶⁹ Capital accumulation programmes are typically (trust) funds, credit programmes, matching grants and guarantees, linked with other donors and multilateral organizations such as the World Bank. Although donors acknowledge the importance of capital accumulation, finance specifically targeted at the manufacturing sector is limited to few programmes, with the exception of IFC/WB interventions.⁷⁰ It is important because capital accumulation is one of the aggregate sources of growth. The manufacturing sector offers special opportunities for capital accumulation. Capital accumulation is one of the aggregate sources of growth. Thus, an increasing share of manufacturing and industry within macroeconomic strategies will contribute to aggregate growth. Moreover, manufacturing can provide good jobs with decent wages.⁷¹

The promotion of the manufacturing sector and the formulation of industrial policies is becoming more explicit in the development strategies of donors, based on the assumption that developing countries have to pass the manufacturing development stage in order to establish the macroeconomic conditions for sustained growth and poverty reduction. Donors see the need for having a national manufacturing strategy in place, prioritizing certain subsectors and envisaging development paths. IFC and WB adopt the comparative advantage approach to selecting these subsectors and assisting national governments to formulate overall national industrialisation strategies. They help governments, industry and firms to discover their current comparative advantage and act accordingly to integrate with the world economy through trade liberalisation.

⁶⁹ Blog Adam Szirmai "Is Manufacturing Still the Main Engine of Growth in Developing Countries?" UNU-Wider website: <https://www.wider.unu.edu/publication/manufacturing-still-main-engine-growth-developing-countries>

⁷⁰ As mentioned earlier, the IMC analysis does not include bilateral development finance institutions (DFIs). A follow-on study of DFIs’ approaches to manufacturing would be helpful in further informing DFID’s future manufacturing support strategy.

⁷¹ Szirmai, A. 2013. Manufacturing and Economic Development. 2013. In "Pathways to Industrialization in the Twenty-First Century: New Challenges and emerging paradigms" edited A.Szirmai, W. Naudé and L. Alcorta. UK: Oxford University Press.

Holistic approach as the basis for DFID's future strategy towards manufacturing

All donors and MOs implement fragmented and implicit activities within programmes supporting manufacturing along with generic private sector development. In terms of DFID's future role in manufacturing support, one consideration concerns the selectivity of support approaches, thus whether to identify a certain 'niche' of support activities within the donor community.

As the many examples of the programmes suggest, manufacturing promotion typical involves various types of activities covering the provision of direct financial and non-financial assistance to the firms as well as the indirect improvement of the external business and institutional context of firms. Manufacturing support involves different activities at different levels (enterprise, government, intermediate organisations) addressing an interacting complex of binding constraints. This calls for a comprehensive approach focus on resolving internal and external factors to firms' growth.

Key question in this discussion is what distinguishes a manufacturing development programme from a generic private sector development programme? The donors and MOs programmes do not provide a clear-cut answer. There are generic support activities, such as finance, infrastructure and business climate, that are essential for manufacturing too. Typical manufacturing support activities (production technology, product standards, and subsector focused integration in global value chains) alone will be too limited to promote a manufacturing sector.

Instead of considering what support to provide, one way to address the question is to focus on a higher level first; the anticipated outcome of a manufacturing programme. This typically involves an increased importance of the manufacturing sectors (number of jobs in manufacturing, share of manufacturing in total GDP, volumes or shares of manufacturing exports). Then, involving backward engineering, develop a theory of change involving generic support (finance, business climate, institutional development, business development services, infrastructure and energy and SEZs) combined with the specific manufacturing support approaches (technology and innovation, product quality standards, subsector selection and value chain position). The figure 1 depicts this perspective to position manufacturing support programmes in the broader framework of generic support programmes.

Figure 1: Generic and manufacturing-specific programme types, approaches and outcomes

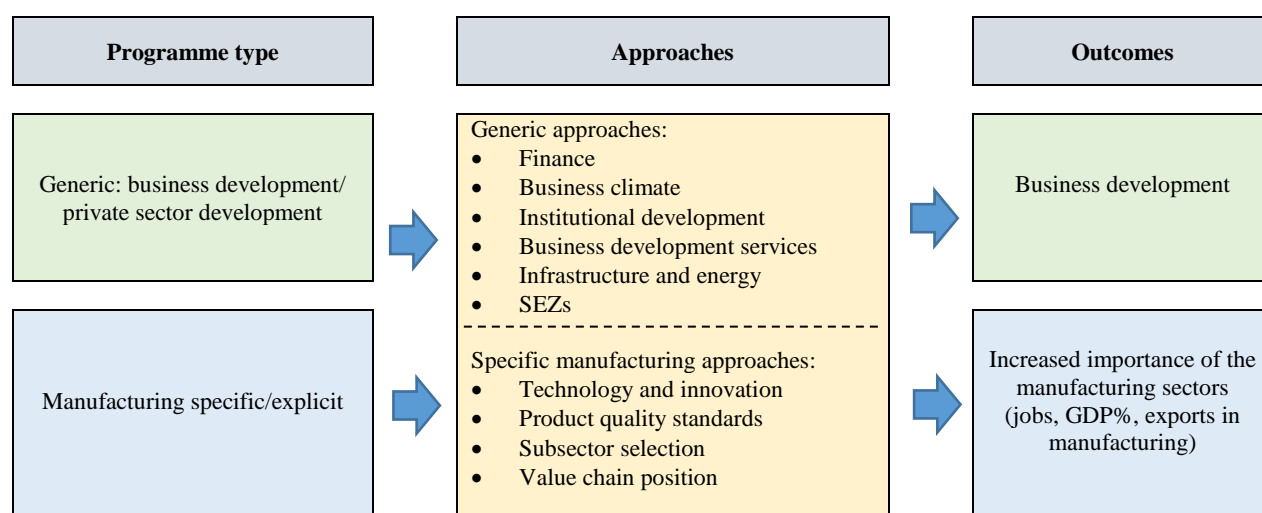


Figure 1 is primarily framed around the country level of operations. It is important to note that programmes can also be developed at the regional or global level which have a sectoral focus (e.g. an attempt to introduce global standards relating to environmental issues for the garments sector) or thematic (e.g. ILO work to create global standards around decent work).

Conclusion

In conclusion, other donors' and MOs' activities provide a range of programme models, strategic approaches and cooperation opportunities. DFID should consider its own strategy objectives and relative strengths when deciding what lessons to draw for its own strategy and programming, and in assessing which collaborations to pursue. These considerations will be accounted for in a final report to be produced as part of the portfolio review contract. In respect of other donors' own activities, there are two clear recommendations. First, that there is a role for DFID in encouraging MOs which DFID funds, including for example the World Bank and the African Development Bank, to develop explicit manufacturing strategies (separate from their broader private sector development strategies) complemented with quantifiable targets. Second, there is a notable gap in overall donor coordination on manufacturing which DFID may wish to address.

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[Skype meeting 14 November 2018]

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[E-mail introduction 10 April 2019]

ANNEX 2: THE WORLD BANK’S APPROACH TO MANUFACTURING

(By EGAT – November 24, 2018)

The World Bank (WB) which is a part of the larger World Bank Group⁷² neither has a *direct* approach to “manufacturing” per se presently, nor has it focused directly on the manufacturing sector in the past. Indirectly, the WB is firmly committed to the manufacturing sector both through its extensive financing operations, and analytical and advisory work though with a distinctly industry-neutral stance to the extent that it is difficult to find even the word “manufacturing” in most project or policy documents. The WB’s overarching approach to manufacturing is pursued through the promotion of “industry competitiveness” without distinction between manufacturing and services. Support to the WB’s client governments and the private sector spans increasing growth, employment opportunities, inclusiveness, and productivity in their manufacturing sectors by addressing the fundamental drivers of competitiveness. Integrated solutions for sector- and firm-level interventions are delivered through technical assistance, financing, or both. But this stance to manufacturing has not always been the same as in the past the Bank was involved a lot more in the direct financing of manufacturing operations through its Industry Department which has disappeared.

This Note reports briefly on how the World Bank delivers on its commitment to industry competitiveness, and its financial and operational commitments. Next, it discusses the evolution of the WB approach to industry competitiveness informed by insights from a few assessments. The Note concludes with a brief reflection on the strengths and weaknesses of the WB’s approach.

WB support to Industry Competitiveness

As of this writing (end 2018), the WB’s support to industry competitiveness is delivered predominantly through two departments or Global Practices called Finance, Competitiveness and Innovation (FCI) and Macroeconomics, Trade and Investment⁷³ that are housed within the Equitable Growth, Finance and Institutions (EFI) network.⁷⁴ EFI’s approach to industry-competitiveness is embedded in its three overarching pillars: (1) sustainable and inclusive growth; (2) resilience and (3) developing human capital. Industry-competitiveness is promoted by the Sustainable & Inclusive Growth pillar through a wide range of thematic operations that apply equally to manufacturing and services and ‘address policy and institutional barriers to mobilize private sector investment in collaboration with IFC and MIGA; support trade reforms and efforts to lower the cost of doing business; support technological innovation and adoption; enhance firm capabilities needed to absorb new technology; and in collaboration with IFC, promote Universal Financial Access 2020, with a strong focus on women’s financial inclusion. The approach to private sector development for growth is comprehensive and applies equally to all sectors.

In 2018, the EFI modified its organizational structure to offer integrated solutions to promote stable, equitable, and efficient markets, institutions, and economies. This directly impacts WB support to industry-competitiveness by enhancing its coverage of trade, private sector and productivity growth as part of the World Bank Group’s efforts to maximize financing for development; deepen engagement on the entrepreneurship,

⁷² The World Bank Group (WBG) is comprised of the World Bank (International Bank for Reconstruction and Development or IBRD, and International Development Association or IDA), International Finance Corporation (IFC) and Multilateral Investment Guarantee Agency (MIGA).

⁷³ The other two Global Practices are Governance and Poverty and Equity.

⁷⁴ The Equitable Growth, Finance and Institutions network’s overarching goal is pursuit of the WB’s Twin Goals: Eliminate Poverty & Boost Shared Prosperity through the three development pathways.

technology, and firm capabilities agendas linking them closely to access to finance; and sharpen its regional focus. Support to manufacturing is indirect and distinctly broad.

The Macroeconomics, Trade and Investment Global Practice of EFI focuses on industry competitiveness through operations linking the macroeconomic dialogue with programs focused on expanding the role of the private sector in economic development. Its thematic areas cover trade policy and logistics, regional integration, trade facilitation, improving connectivity through infrastructure investment and regional cooperation, investment policy, business regulation and pro-competitive rules in key sectors to ensure a level playing field.

The Finance, Competitiveness and Innovation (FCI) Global Practice of EFI approaches industry competitiveness through operations that create markets in client countries by promoting access to finance for SMEs; nurturing firm capabilities for entrepreneurship and enabling firms to innovate/use new technologies to improve productivity. FCI's Industry Solutions department addresses sector-specific market failures and policy distortions and provide specific solutions in the tourism and agribusiness sectors. While tourism, ICT or agribusiness have dedicated projects, subsectors within the manufacturing sector do not receive any special treatment. FCI's operations span:

- **Industry solutions** focuses on sector or industry-specific policies and growth including agribusiness, tourism, and manufacturing. It also addresses spatial growth and investment strategies, for the development/management of special economic zones, growth poles, clusters, linkages from anchor investments, and city competitiveness strategies. Relative to other FCI operations departments, the “Industry Solutions” department’s agenda seems the most focused on “manufacturing” though closer scrutiny reveals that agribusiness and tourism receive disproportionate attention. An example of a manufacturing support project is WB assistance to attract FDI in manufacturing in the **Northeast Frontier States of Brazil**. A partnership with the national investment promotion agency, APEX, resulted in over \$900 million in new investments in the states of Para & Pernambuco. WB support included identification of subsectors with high FDI potential, state-level institutional strengthening on investor outreach and support, and identification of the best locations for operations based on serviced land, access to skills, and trade logistics.
- The department for **Innovation and Entrepreneurship** fosters productivity to raise economic growth and employment through the development of innovation and entrepreneurship ecosystems. As an example, the WB project in the **Caribbean** (winC) helped to connect the women innovators network to growth-oriented women entrepreneurs and help them scale their businesses through mentoring, training, and peer-to-peer learning.
- The **Investment climate** department covers business environment reform and investment policies for manufacturing and services. Global benchmarking products, such as the World Bank’s Doing Business project, have put business regulatory reform at the forefront of government agendas and created strong demand for WB projects to encourage new firm formation in manufacturing and service sectors alike by focusing on reforms in business entry regulations, land regulation, taxation, and labour regulations etc. The government of **Côte d’Ivoire**, which was ranked as a top 10 reformer in Doing Business for two consecutive years, worked with the WB to implement 16 reforms in business start-up, registering property, etc. It also has adopted regulations to reduce explicit or implicit discrimination against female entrepreneurs. A **Mongolia** project focused on a new investment law eliminated screening for FDI approvals. This good practice boosted investor confidence by protecting more than \$10 billion of existing FDI stock from expropriation.

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Financial Support for industry competitiveness

EFI lends close to 30 percent of the WBG's IBRD/IDA total lending volume and is a contributor to another 20 – 25 percent. Between 2015 – 17, EFI commitments ranged between \$11 – \$13 billion annually. In FY2017, EFI's total active portfolio was about \$27.2 billion with 250 loans.

A 2017 evaluation⁷⁵ of the WB portfolio to promote *Industry Competitiveness* finds that of the 881 projects during 2008–14 that contained some elements of industry-specific support, 463 were WB lending operations, 165 IFC investment projects, 190 IFC Advisory Services engagements, and 63 MIGA guarantee projects—a total value of \$21.6 billion, representing about 6 percent of total WB Group project approvals in the period. Most WB Group activities to help improve manufacturing competitiveness consisted of firm-level support provided by IFC and MIGA. WB's direct support to promote manufacturing competitiveness was limited mostly to agro-processing.⁷⁶ Only 20 percent of WB industry-specific competitiveness support was in manufacturing, of which 80 percent supported agribusiness. A significant share of the projects was in Africa and in low-income countries. WB operations also supported Industry Competitiveness through tourism, ICT and agriculture projects.

Evolution of WB approach to industry competitiveness and some reflections

The WB's approach to industry competitiveness has evolved over time from supporting import substitution strategies in the 1950s and 1960s, to emphasizing outward-oriented trade policies in the 1970s and 1980s, to improving the overall business environment to enhance competitiveness since the 1990s, to a stronger focus on promoting competitiveness in specific industries such as tourism and ICT. The approach to manufacturing has firmly skirted identifying subsectors within manufacturing. This could be explained by risk aversion to 'picking winners' and more generally, a commitment to broad-based development, trusting that markets and firms know what is best for them relative to government. In contrast, the WB is strongly and directly committed through its elaborate operations and structure, to the development of the financial sector, banking, agriculture, energy, infrastructure, health, education, transport, forestry, fisheries, extractive industries, tourism, ICT, and telecommunications.

Its broad-brush approach to industry-competitiveness makes it difficult to find glaring deficiencies in the WB's approach to manufacturing. However, the evidence, especially in East Asia's successful countries, makes it equally difficult to argue that rapid industrialization was an offspring of the market forces alone and happened automatically without government efforts to redress sector-specific constraints to manufacturing. Most developing countries with flourishing manufacturing sectors continue to have distorted investment climates. In the exceptional case where specific industries are thriving, industry-specific interventions to correct market failures are apparent. The accelerating trend of deindustrialization in developing countries (Rodrik 2006),⁷⁷ combined with their grossly distorted investment climates beg the question for how long these countries must continue to focus on refining the economy-wide business environment before manufacturing will take off. The larger issue is not whether the WB's approach to manufacturing is correct. Rather, it is whether it is enough to assume that all sectors *only* face the *same economy-wide constraints*. If one believes that sector-specific constraints to manufacturing matter, then there is a large and open agenda/space which DFID could fill and contribute in a fundamental way to re-industrializing development, especially in Africa.

⁷⁵ Industry Competitiveness and Jobs: An Evaluation of World Bank Group Industry-Specific Support to Promote Industry Competitiveness and Its Implications for Jobs. 2017. Independent Evaluation Group. International Bank for Reconstruction and Development / The World Bank. Washington DC 20433.

⁷⁶ Overall, World Bank manufacturing interventions (mostly agribusiness) sought to introduce new ways of doing business, new technologies, and practices (45 percent), enhance the capacity of public and private institutions (31 percent), link farmers and enterprises to markets (24 percent), and improve the regulatory environment to support agribusiness industries (22 percent).

⁷⁷ Rodrik, D. 2016. Premature Deindustrialization. *Journal of Economic Growth*, 21(1): 1–33.

ANNEX 3: CONSULTED DOCUMENTS (SEPARATELY AVAILABLE ON GOOGLE DRIVE)

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- USAID. 2018. PRIVATE-SECTOR ENGAGEMENT POLICY. U.S. Agency for International Development

Other relevant references

- The [Framework for Eco-Industrial Parks](https://openknowledge.worldbank.org/bitstream/handle/10986/29110/122179-WP-PUBLIC-AnInternationalFrameworkforEcoIndustrialParks.pdf?sequence=1&isAllowed=y) has just been published (UNIDO, WB and GIZ).
<https://openknowledge.worldbank.org/bitstream/handle/10986/29110/122179-WP-PUBLIC-AnInternationalFrameworkforEcoIndustrialParks.pdf?sequence=1&isAllowed=y>
- UNIDO's strategic approach to partnerships for achieving enhanced levels of inclusive and sustainable industrial development: rapid progress and international recognition
- <https://www.usaid.gov/partner-with-us>). <https://www.usaid.gov/catalyzing-innovation-and-partnership>
- USAID the relevance of sub-sector focus to the donor's domestic manufacturing industry strength
<https://medium.com/usaid-2030/partnering-to-accelerate-entrepreneurship-d50822b5473e>
- <https://www.usaid.gov/partner-with-us>). <https://www.usaid.gov/catalyzing-innovation-and-partnership>
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<https://medium.com/usaid-2030/partnering-to-accelerate-entrepreneurship-d50822b5473e>
- <https://www.usaid.gov/gda>
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- Examples of IFC-supported manufacturing projects:
https://www.ifc.org/wps/wcm/connect/Industry_EXT_Content/IFC_External_Corporate_Site/Manufacturing/News/
- IFC expertise in Manufacturing
https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/manufacturing